ABSTRACT
        During the first quarter of the 1973-74 grant year,
personnel in the curriculum materials for the mentally retarded
section of Project MORE (Mediated Operational Research for Education)
continued their work on the design and development of 16 programs.
Also, efforts continued for educating consumer groups through
workshops. Research and reporting efforts have emphasized a more
efficient programing of the Stimulus Shift Generalization program
with a public school population. The print/production component of
media support services has been involved in both the preliminary and
final mediation on several Project MORE programs. In addition, a
feature length newspaper article was written together with the
production of the second edition of the Mental Retardation Films
catalog. Moreover, a workshop package has been an important part of
media's activity during this quarter. The systems analysis group
subjected the implementation system to rigorous analysis, and new
procedures were incorporated without any major loss of effectiveness.
Also, a Developmental Disabilities Act planning guide entitled
Systematic Planning with Evaluation Criteria was completed. (WCM)

PROJECT NO. 26-2364

GRANT NO. OEG-0-71-0449 (607)

Programmatic Research to Develop and
~~Project MORE~~ Disseminate Improved Instruction
Technology for Handicapped Children

Project MORE

Richard L. Schiefelbusch and James R. Lent

UNIVERSITY OF KANSAS BUREAU OF CHILD RESEARCH

May 31, 1973
Quarterly Progress Report
February 1, 1973, to May 31, 1973

QUARTERLY PROGRESS REPORT

Project No. 26-2364
Grant or Contract No. OEG-0-71-0449(607)

PROGRAMMATIC RESEARCH
TO DEVELOP AND DISSEMINATE
IMPROVED INSTRUCTIONAL TECHNOLOGY
FOR HANDICAPPED CHILDREN

Richard L. Schiefelbusch
and
James R. Lent

The University of Kansas, Bureau of Child Research
and
The Parsons State Hospital and Training Center

Parsons, Kansas

May 31, 1973

Department of Health, Education, and Welfare

U.S. Office of Education

Bureau of Education for the Handicapped

OE Project NO. 26-2364   Contract or Grant No. OEG-0-71-0449(607)

Period 2/1/73 to 5/31/73   Date of Submission May 31, 1973

Name of Institution: The University of Kansas, Bureau of Child Research
                              and
                      The Parsons State Hospital and Training Center

Name of Project Director(s): Richard L. Schiefelbusch   Bureau of Education
                                      and   for the Handicapped
                              James R. Lent   Division of Research

Title of Project: PROGRAMMATIC RESEARCH
                    TO DEVELOP AND DISSEMINATE
                    IMPROVED INSTRUCTIONAL TECHNOLOGY
                    FOR HANDICAPPED CHILDREN

1. Major Activities and Accomplishments During this Period

2. Problems

3. Significant Findings and Events

4. Dissemination Activities

5. Capital Equipment Acquisitions

6. Data Collection

7. Other Activities

8. Staff Utilization

9. Future Activities Planned for Next Reporting Period

10. Certification

_____   _____
Signature of Contract Officer   Signatures of Principal Investigators

_____   _____May 31, 1973_____
Date   Date

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INTRODUCTION

Project MORE is directed toward the development
of instructional programs aimed at specific behavioral
deficits among handicapped children. The instructional
programs are being: 1) empirically validated; 2)
organized through the application of systems technology;
3) implemented by optimal, multimedia materials; and 4)
disseminated in a way which assures immediate application
in educational environments by virtue of their systematic
nature and their multimedia format.

This Project is organized to accomplish these ob-
jectives through the use of Systems for organization,
the Central Office for administrative support, Media for
implementation, and through the two programmatic research
projects: 1) Curriculum Materials for the Mentally
Retarded, conducted by James R. Lent, Ed.D.; and 2) Re-
search, Development, and Dissemination of Programs for
Improved Instructional Technology for Articulation
Therapy in Public Schools, conducted by James E. McLean,
Ph.D., and Sandra Raymore. (Reports contained herein
are referred to as LENT, McLEAN/RAYMORE, MEDIA, and
BUDDE.)

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

During the first quarter of the 1973-1974 grant year, personnel in the Curriculum Materials for the Mentally Retarded portion of Project MORE have continued in the design and development of 16 programs. Figure 1 shows completed design and development as of May 31, 1973. Following is the first quarter activity on the various programs:

SHOWERING PROGRAM. Eight students were tested using the expanded version of the Shower Song. The song was expanded to clearly cue everything required for successful bathing and to provide time for the student to carry out these activities (see Lent, Significant Findings and Events, for the verses of the original and expanded version of the song, and see Media, Major Activities and Accomplishments). Lent, Significant Findings and Events, presents the data and reliability chart on the eight students involved in the program, and Lent, Data Collection, contains the showering checklist used to collect data.

IRONING PROGRAM. The essential critical components of the Ironing' Program were identified from the results of previous testing, pulled out of the original program, and condensed into six units. These units are: 1) Preparation, 2) Spraying and Ironing a Flat Piece, 3) Spraying and Ironing a Skirt, 4) Spraying and Ironing a Blouse/Shirt, 5) Spraying and Ironing Slacks/Shorts, and 6) Putting Away Equipment (see Lent, Data Collection, for the checklist of behaviors now included in the six units of the Ironing Program). The revised program is being tested on six students at the present time (see Lent, Significant Findings and Events).

FACE SHAVING. The testing of six additional students on the Face Shaving Program was completed (see Lent, Significant Findings and Events). The data were analyzed, revisions were made based on the data analysis,

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Figure 1 BEST COPY AVAILABLE

Completed program design and development as of May 31, 1973, on 17 programs of the Curriculum Materials for the Mentall: Retarded portion of Project MORE.

Completed Program Design and Development

	Definition of Target Behavior	Task Analysis	Design of Teaching Techniques	Development of Loading Chart	Rough Draft of Program	Rough Draft of Mediated Program	Program Testing	Data Analysis	Program Revisions	Final Testing	Final Mediation			
Use of Sanitary Napkins	■	■												
Care of Simple Injuries	■	■												
Care of Fingernails	■	■	■	■	■									
Use of Deodorant	■	■	■	■	■	■	■							
Hand Washing	■	■	■	■	■	■	■							
Nose Wiping	■	■	■	■	■	■	■							
Hair Washing	■	■	■	■	■	■	■							
Appropriate Mode of Clothing	■	■	■	■	■	■	■							
Use of Telephone	■	■	■	■										
Complexion Care	■	■	■	■	■		■	■						
Eating Skills for Daily Living	■	■	■	■	■	■	■	■	■					
Toothbrushing	■	■	■	■	■	■	■	■	■					
Leg and Underarm Shaving	■	■	■	■	■	■	■	■	■					
Face Shaving	■	■	■	■	■	■	■	■	■					
Ironing	■	■	■	■	■	■	■	■	■	■				
Showering	■	■	■	■	■	■	■	■						
Hair Rolling	■	■	■	■	■	■	■							

■ COMPLETED ACTIVITIES

and the program entered final mediation in preparation for dissemination.

The only significant change from the original version was to organize the program so each step is taught at each session.

FEMININE SHAVING. This program has been renamed Leg and Underarm Shaving Program to keep the language consistent with the title of the Face Shaving Program. During the first quarter of the grant year, the testing of five additional students on the Leg and Underarm Shaving Program was completed (see Lent, Significant Findings and Events). The data were analyzed (see Lent, Data Collection), revisions were made based on the data analysis, and the program entered final mediation.

As in the Face Shaving Program, the significant change from the original version was to organize the program so each step is taught at each session.

TOOTHBRUSHING PROGRAM. The testing of the Toothbrushing Program was completed on one group of four students, then replicated on another group of four students using a multiple baseline experimental design. Minor revisions were made in the program (see Lent, Significant Findings and Events) and it is now being mediated into the final version for dissemination.

EATING ETIQUETTE PROGRAM. This program has been renamed Eating Skills for Daily Living to more adequately portray the purpose of the program in the title. Testing was completed on nine students in the Eating Skills Program. The program worked well and required only minor editorial revisions. The program has gone to final mediation in preparation for dissemination. The data from the nine subjects is presented in Lent, Significant Findings and Events.

COMPLEXION CARE PROGRAM. The rough draft of the Complexion Care Program was completely revised. The program has three sections, one for students with "normal" skin, one for students with "oily" skin, and one for students with

"dry" skin. A new nonstaff trainer was hired and is currently teaching the program to two students. Institutional personnel in the aide training class are teaching the program to another three students.

USE OF TELEPHONE PROGRAM. This program is being completely rewritten due to the inability of nonstaff trainers to adequately follow the complex branching system used in the orginial version. Plans call for scheduling a test of the revised program during the next quarter.

APPROPRIATE MODE OF CLOTHING PROGRAM. Activity on this program consisted of mediating the scenes depicting situations in which a particula.° mode of clothing is appropriate, and preparing the cardboard figures and paper clothes to be placed next to the scenes. Six students were tested on the rough draft of the program (see Lent, Significant Findings and Events).

HAIR WASHING PROGRAM, NOSE WIPING PROGRAM, HAND WASHING PROGRAM, USE OF DEODORANT PROGRAM, and CARE OF FINGERNAILS PROGRAM. These programs were written in rough draft form and tested with student nurses serving as trainers. Four different students have been tested in each program. Each of the above programs will be tested during the next quarter on four additional students.

CARE OF SIMPLE INJURIES PROGRAM and USE OF SANITARY NAPKINS PROGRAM. These two programs are assigned the status of float programs. The research assistants assigned to these programs are proceeding with the identification of components and their organization into a task analysis when time is available at certain steps in the development of the other 14 programs currently underway.

WORKSHOP ACTIVITIES

Efforts for educating consumer groups through a workshop continued during this quarter. A workshop director, based at Parsons, is working with the KU/SEIMC with the goal of eventually conducting workshops in the

five-state SEIMC region.

Working with the research staff and the Media staff of the Project, the workshop director has developed and produced several prototypical workshop packages. These packages are presented in a multimedia format and are centered around simulation activities by workshop participants. The initial purpose of these packages is to educate groups of teachers, paraprofessionals, and parents in the purposes and methods of the programs produced by the Project. A basic format will ultimately be evolved which may be used to educate the consumer in the use of each new program as it is placed on the market. The overall aim is to validate a replicable workshop package for the SEIMC network, as well as form a direct communication link between the Project and workshop audiences.

The first prototypical workshop packages were presented to the Minnesota Council for Exceptional Children in Duluth March 24, the Atlanta Behavior Modification Workshop March 25-28, and a symposium March 29-31 in Santa Barbara, California, titled The Adult Retarded: Extending Service, sponsored by California State University at Los Angeles through the President's Council on Mental Retardation. The latest revision was presented to the Hospital In-Service Training class of Parsons State Hospital and Training Center and to staff members of Emerson School (for the trainable mentally retarded) in Minneapolis, Minnesota, May 7-8.

Approximately 260 persons have participated in these workshop activities to date. Pre- and posttests taken in each presentation have shown the presentations to be relatively successful, but the data have not yet been substantial enough for validation of the package. Each participant has been given a communication form for future contact with Project MORE. This future contact will provide data on the continuing effect of the workshop package.

Revisions of the prototypical workshop packages are now being made for presentation in June to the Staff Development Conference of the South Waterloo Association for the Mentally Retarded in Toronto, Canada. Several other inquiries have been made for workshop presentations and negotiations for them are now in progress. A brochure explaining the workshop package is being developed for use in correspondence and displays.

2. PROBLEMS

A major concern during the past year has been the procedural difficulties surrounding field testing of Project MORE programs. During the first quarter of this grant year, major problems of field testing (as reported in previous progress reports) have been ameliorated by discontinuing field testing at distant sites and by initiating field testing procedures at Parsons State Hospital and Training Center and nearby stations. It is now possible to gather reliable data on daily training sessions.

It is also possible to monitor trainers' adherance to program guidelines, to utilize daily feedback from trainers, and to opitimize a variety of other activities during field testing, all of which are essential to program design, development, and evaluation, but which were previously prohibitive because of time and cost effectiveness (see Lent, Significant Findings and Events, and Data Collection). Some nagging issues concerning field testing remain, however.

By conducting field testing at Parsons State Hospital and Training Center and nearby stations (e.g., homes of families including retarded individuals, nearby training schools), a greater degree of control has been gained; however, other difficulties have emerged. While we are now assured that Project MORE programs will be effective and that this effectiveness will generalize to a target population, it has become somewhat more difficult to claim that program effectiveness will be maintained across other geographical settings. Nonetheless, distant field testing has proven to be not only prohibitively time consuming and costly, but also failed to yield usable, rigorous, quantitative evaluation data.

Dr. William J. Marshall, liaison officer for NCEMMH/MSSD and consultant to the proposed Operation PULSE (the field testing/evaluation branch of Project LIFE), recently consulted with the Project MORE staff concerning this problem and overall field evaluation procedures. In general, he found Project MORE product-oriented field evaluations of programs at Parsons State Hospital and Training Center to be sound and defensible. Several plans for improvement and expansion of field testing were explored and are currently being examined for feasibility.

The decision to limit field testing to sites (Parsons State Hospital and Training Center and nearby stations) where daily monitoring of training, scheduling of subjects, negotiation for trainer time, and so on, is performed by Project MORE staff members has proven highly functional from the stand-point of determining fundamental program content validity (i.e., Do the programs do what they were intended to do?). But even this procedure has presented problems. The securing of subjects, naturalistic training settings, and, most importantly, trainers has been accomplished only at the cost of Project MORE staff time. This has also caused a redefinition of roles and responsibilities for a large number of hospital staff members (e.g., a music therapist teaches the Showering Program).

In addition, scheduling of available program trainers and training time has proven to be a major administration and coordination effort. During this quarter these duties have cut available time and effort expended in program design and development. At the present time, the groundwork for the more expeditious accomplishment of these duties in future field testing seems well laid. Ideally, scheduling and coordination of trainers, trainees, and training settings for field testing will reduce to a simple chore requiring minimal staff time.

During the first quarter of the grant year several lesser problems have also arisen. Data analyses of program training sessions have indicated the importance of trainer variables in program effectiveness. Based on this information, the program-teaching strategies have been explicated more rigorously and extensively. In addition, an effort is being made to correlate general training proficiency and adherance to the programs with trainee characteristics, training setting, and, ultimately, program effectiveness. The isolation of appropriate reinforcers for program trainees constitutes a related problem area now finding solution by means of inclusion in the program materials of explicit instructions to the program trainer regarding reinforcer selection and application.

The inclusion of artificial foods with the Eating Skills Program has presented some difficulties. Preliminary solutions have not been completely satisfactory. At present Project MORE personnel are investigating several possibilities (e.g., multicolored clay to be molded by potential trainer and trainee; premolded plastics).

The dissemination of Project MORE programs constitutes another problem area (see Media, Dissemination Activities).

3. SIGNIFICANT FINDINGS AND EVENTS

Significant findings and events on the 16 programs currently in production by the Curriculum Materials for the Mentally Retarded portion of Project MORE are presented below:

SHOWERING PROGRAM. Pretest, session-by-session, and posttest results of the eight students selected for the showering program are presented in Figures 2 through 9. The checklist used to collect the pretest, session-by-session, and posttest data (see Lent, Data Collection) has proven reliable. Pre- and posttest reliability, computed by dividing the number of times the two observers agreed on correct student performance by the number of agreements plus disagreements, is presented in Table 1. Reliability on the pretest ranged from 85 percent to 100 percent; posttest reliability ranged from 85 percent to 96 percent, all well above the 80 percent minimum.

The data on the eight students show that six of the eight made increases in the percentage of total behaviors performed correctly ranging from 56 percent to 96 percent (an average increase of 70 percent) resulting in final performance ranging from 76 percent to 100 percent (average 88 percent) of the total number of behaviors in the Showering Program. Two subjects did poorly, showing gains of 27 percent and 33 percent (average 30 percent) respectively with final performance of 35 percent and 44 percent (average 40 percent) of the total behaviors.

The problems with these two students was a lack of sufficient motivation to perform. Plans are underway to see if the addition of external incentives, such as systematic use of an extrinsic positive reinforcer combined with the use of the program, will produce terminal performance which will match that of the other six students.

Figure 2

Mike Pearson

PERCENT SHOWERING BEHAVIORS

100

80

60

40

20

0

pre test

5   10   15   20   25   30

post test

SESSIONS

Figure 3

Billy Long
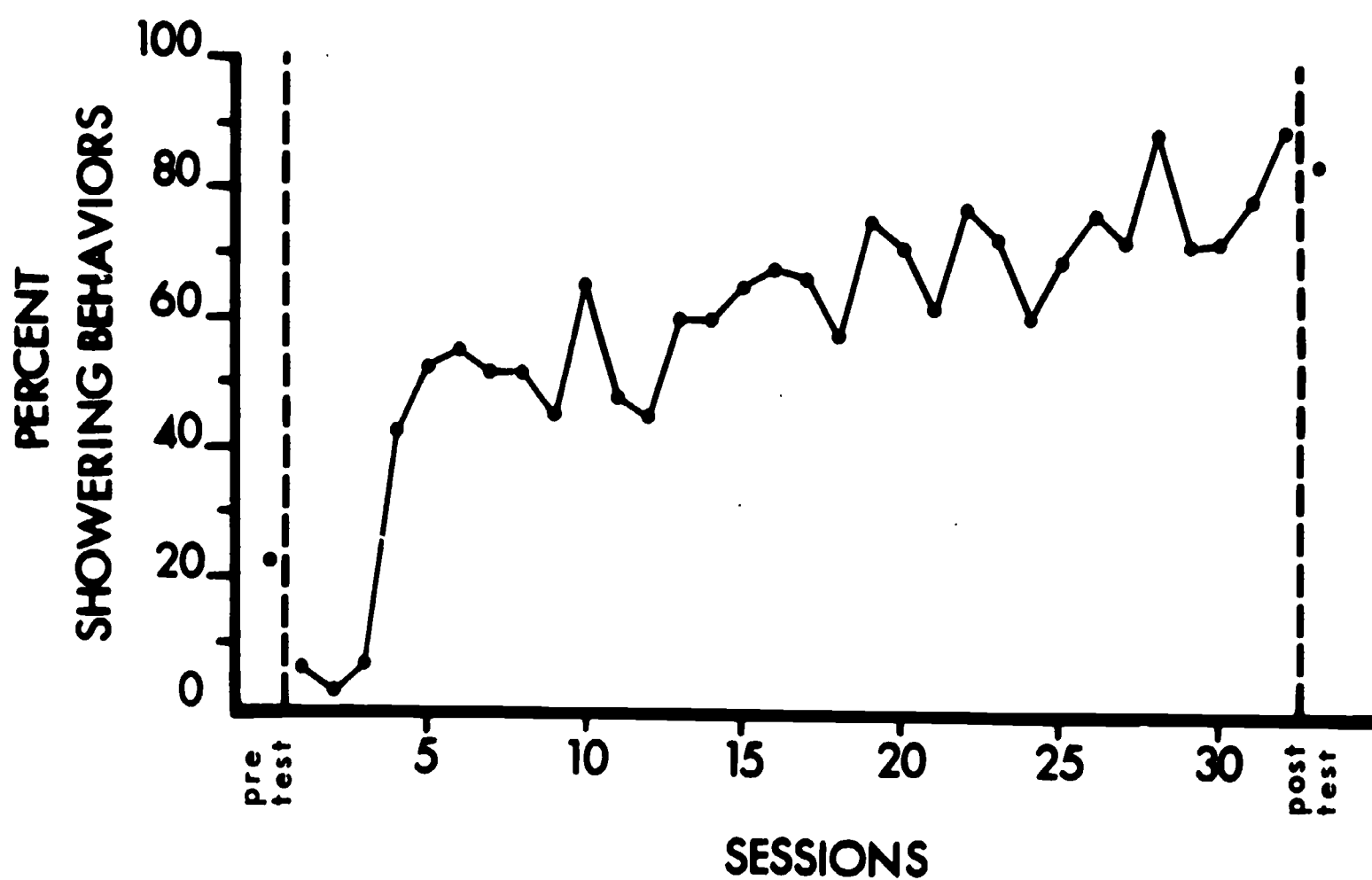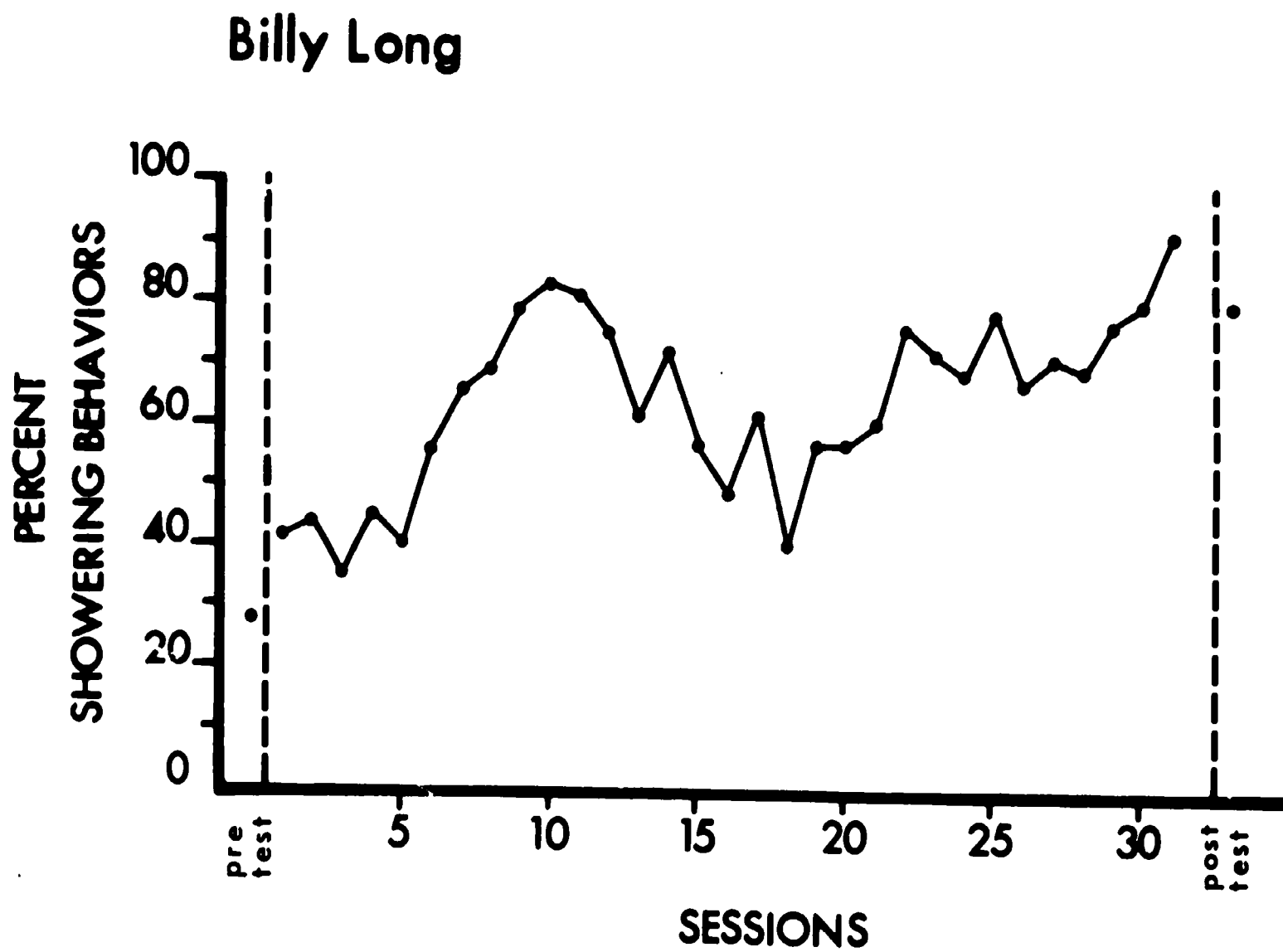
Figure 4

James Anderson
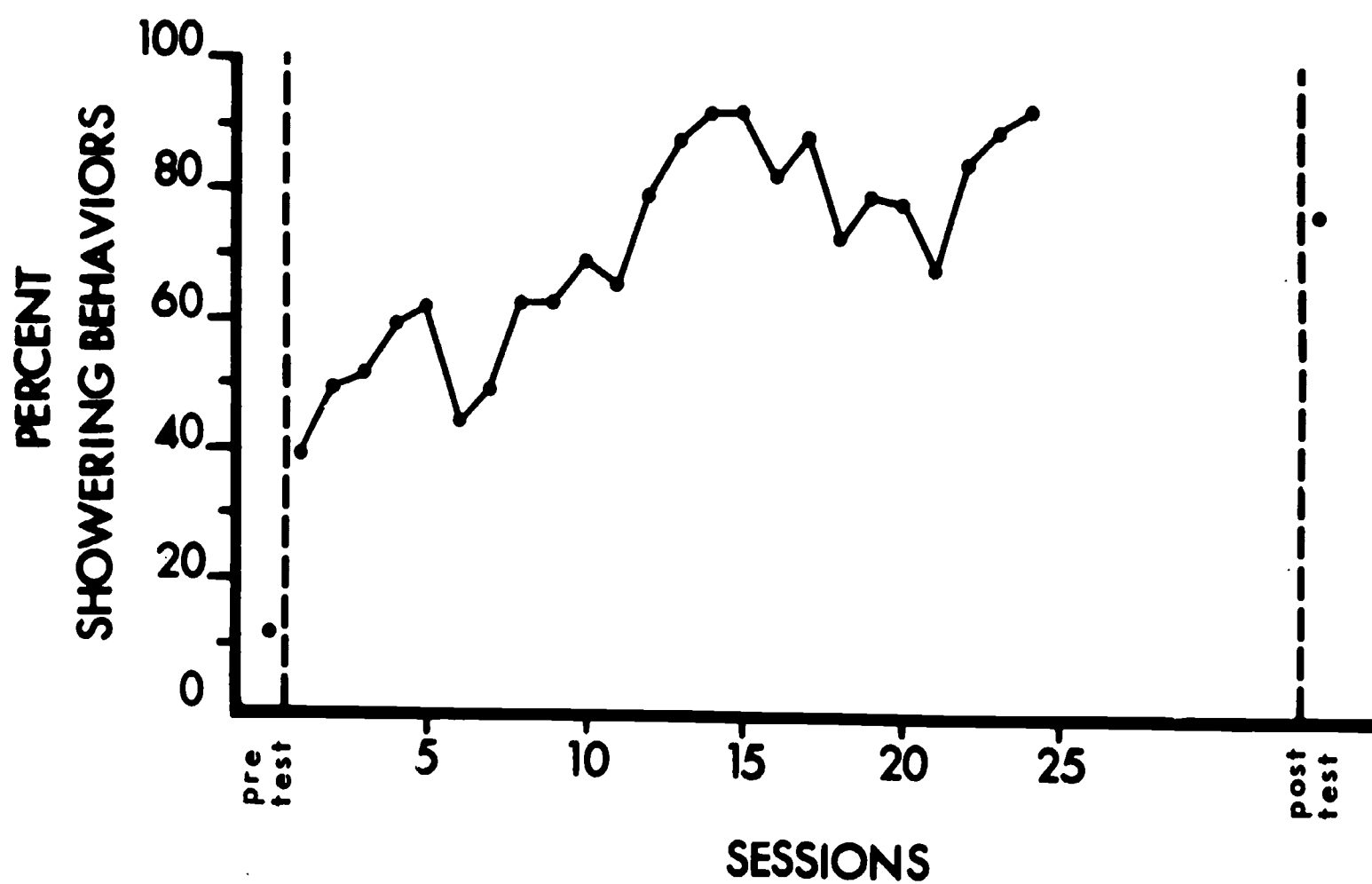
Figure 5

Terry Bennett
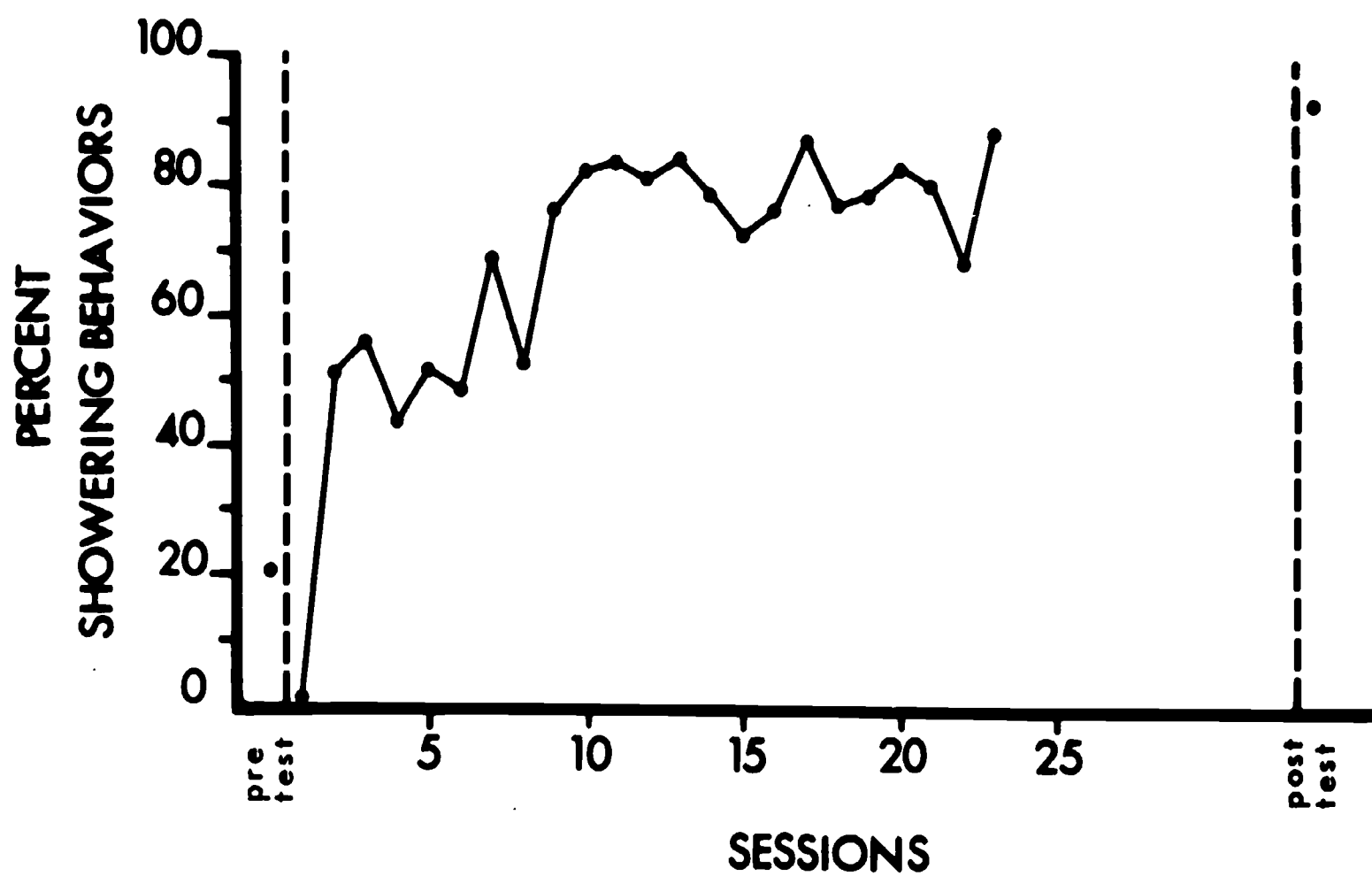
Figure 6

Chris Cooley
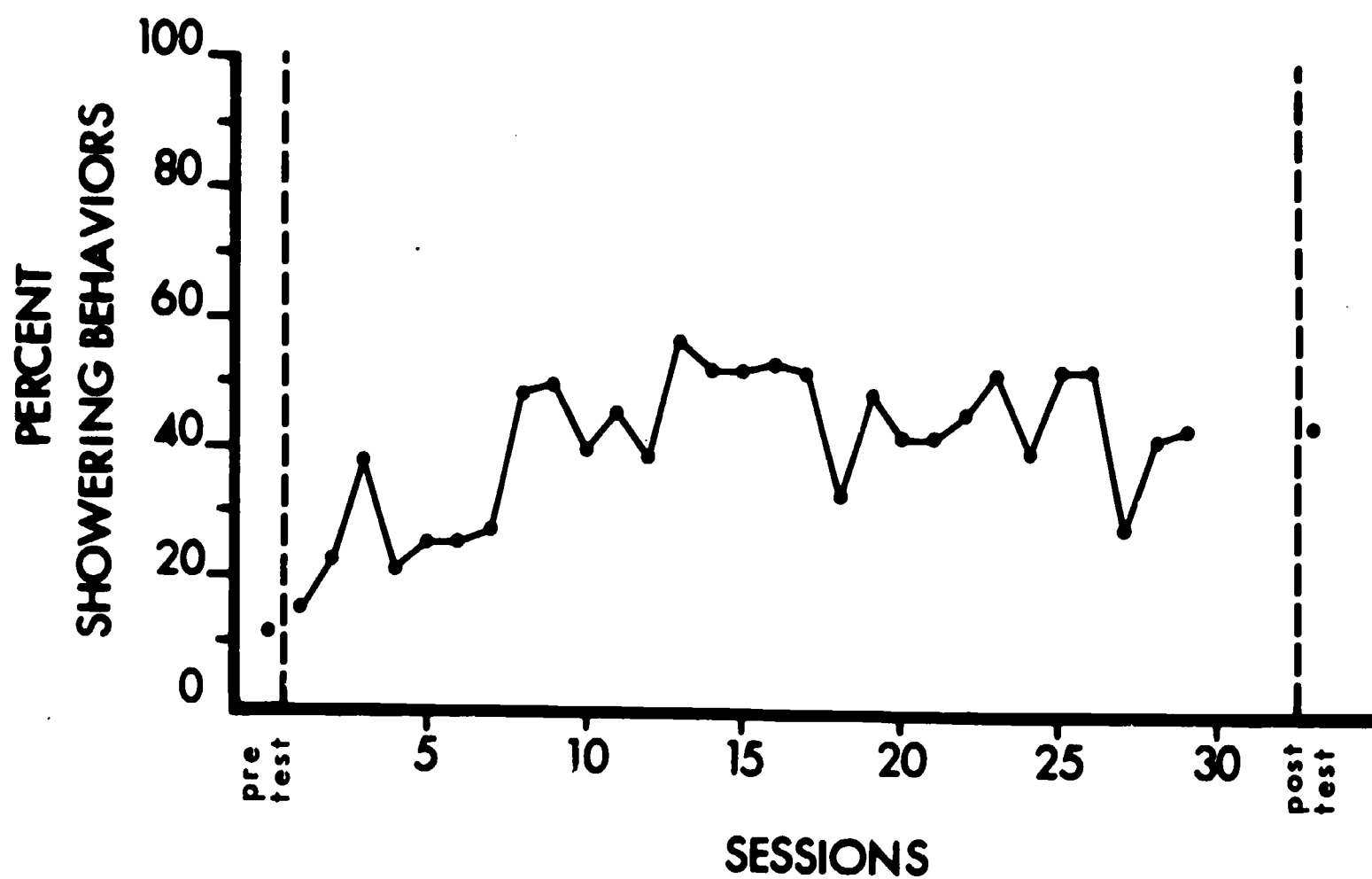
Figure 7
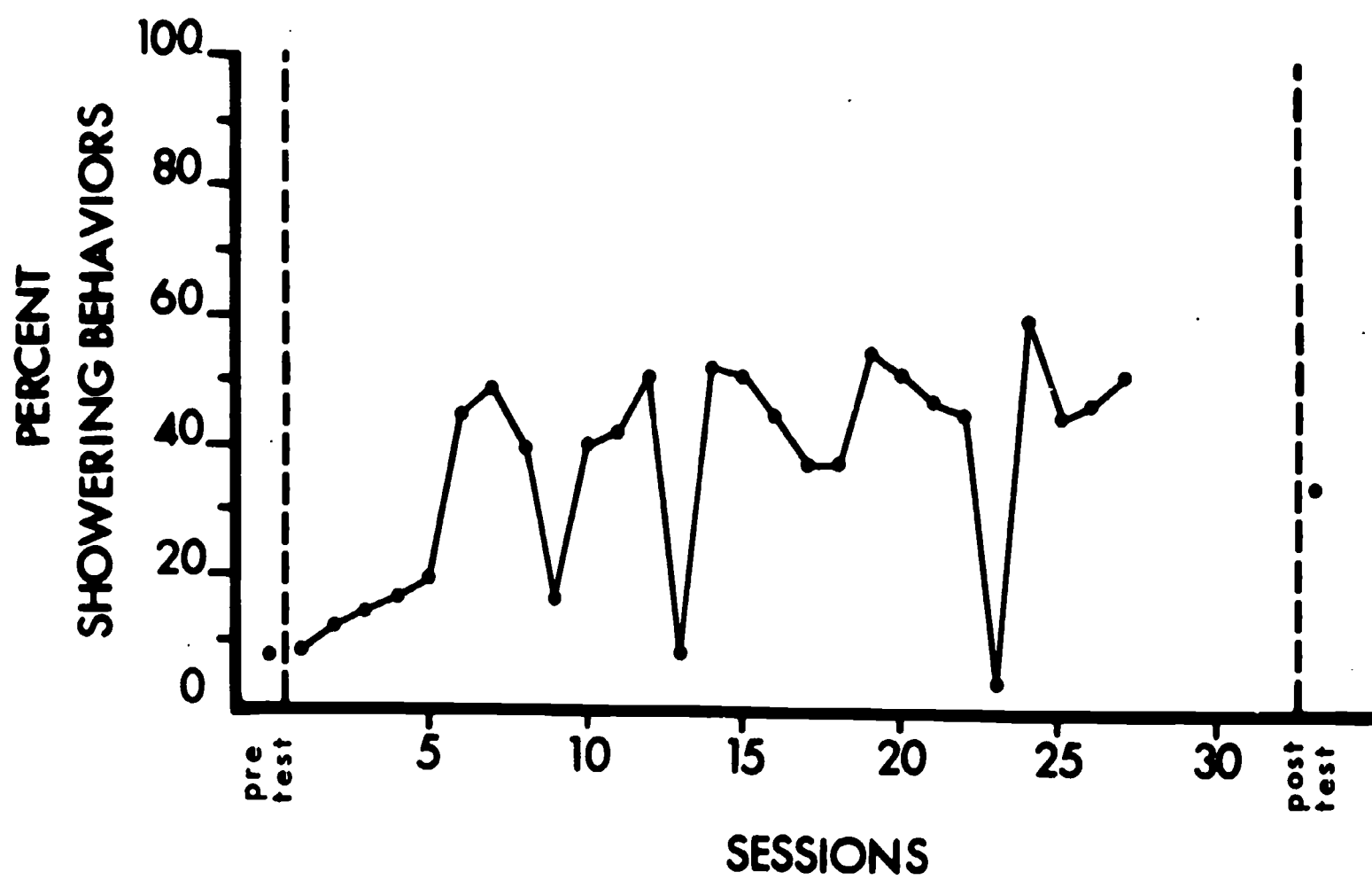
Kevin Moore

Figure 8

Tammy Brown

PERCENT SHOWERING BEHAVIORS

SESSIONS

pre test

5
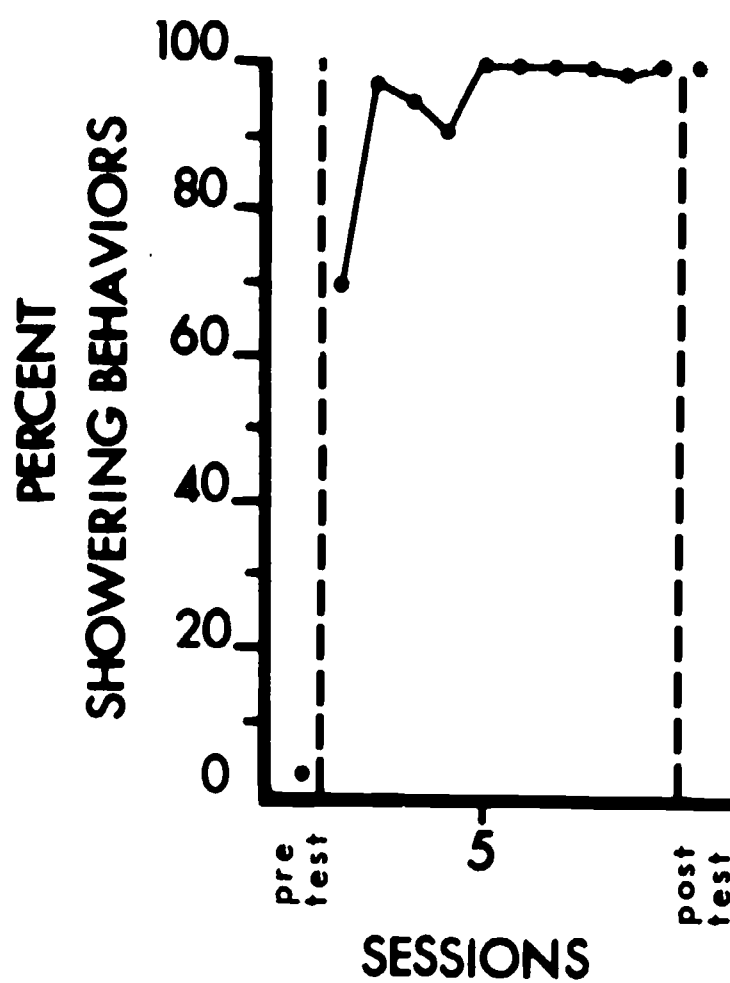
post test

Figure 9

Tammy Creed
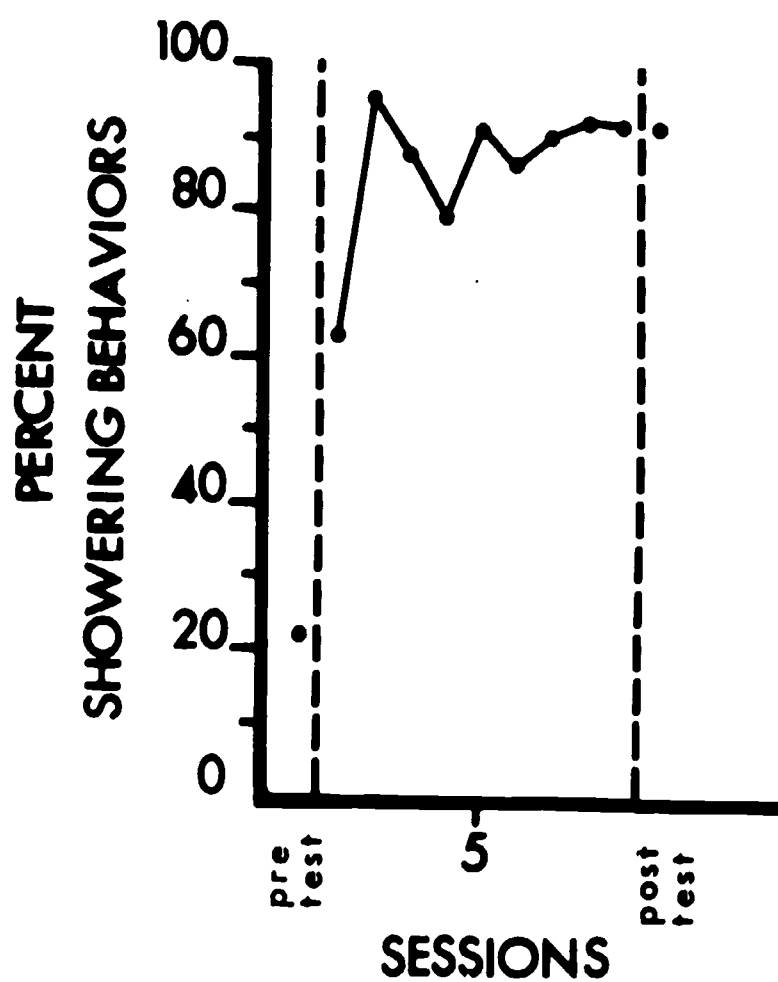
Tab!e 1

Data Summary Sheet	Project M(O)RE
	Mediated Operational Research for Education

PRE·POSTTEST DATA SUMMARY SHEET

(Raw Score/Percent)

PROGRAM: SHOWERING

NUMBER OF BEHAVIORS SCORED: 75

Subject	PRETEST		POSTTEST		RELIABILITY	
	Observer A	Observer B	Observer A	Observer B	Pretest	Posttest
Chris Cooley	8/11%	10/13%	32/43%	33/44%	89%	95%
Terri Bennett	16/21%	18/24%	70/93%	70/93%	85%	92%
Tammy Creed	17/23%	18/24%	69/92%	63/84%	85%	92%
Mike Pearson	17/23%	13/17%	63/84%	67/89%	89%	91%
Billy Long	21/28%	21/28%	6C/80%	62/83%	95%	89%
James Anderson	8/11%	8/11%	57/76%	53/71%	1C0%	85%
Kevin Moore	6/8%	5/7%	26/35%	23/31%	95%	96%
Tammy Brown	7/9%	3/4%	75/100%	71/95%	87%	95%

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The lyrics of the Shower Song were revised and expanded to clearly cue everything required for successful bathing and to provide time for the student to carry out these activities (see Lent, Major Activities and Accomplishments). The words to the original Shower Song are as follows:

Verse 1

We'll wash and scrub tonight, get clean and shining bright!
For that must be the way, for all good kids to stay!
So come along and see, how much fun it will be,
Together you can learn to bathe with me!

Chorus 1

Let's make sure to get plenty of soap on our wash cloths.
Are you ready?

Verse 2

First we wash our face, all around our face!
Then we wash our ears, don't forget two ears!
Then we wash our neck, and shoulders, all around our neck, and shoulders.
And that's the way we start to bathe our bodies.

Chorus 2

Face! Ears! Neck! and shoulders. All around our
Face! Ears! Neck! and shoulders!

Verse 3

Now we wash our chest, all around our chest!
Then we wash our arms, up and down our arms.
Our arms we then will rise, wash up and down our sides,
Then we reach right through and backs we will wash too!

Chorus 3

Chest! Arms! Sides! Up and down our
Chest! Arms! Sides! Back!

Verse 4

Now we wash our tummy, all the way down our tummy!
Then we wash our hips, all around our hips.
Again we do our backs, all the way down our backs.
Our shower fun is over half way done!

Chorus 4

Tummy! Hips! Back! All the way down our
Tummy! Hips! Back!

Verse 5

It's time to wash our legs, up and down our legs.
Don't forget our knees; scrub, scrub, scrub, our knees.
We make our two heels neat, and then our toes and feet,
The bottom and top, and then we stop!

Chorus 5

Legs! Knees! Heels! Toes and feet!
Legs! Knees! Heels! Toes and feet!
The bottom and the top, and then we stop!

In the original version of the Shower Song, the student was expected,
for example, to wash one arm during the verse and the other arm during the
chorus. The new song has incorporated both arms, sides, legs, and so on?
into the song itself. In addition the new version has included a drying
sequence. The new version is as follows: (the words on the left side of
the page are spoken just before the lyrics in the right side of the page
are sung):

SPOKEN	SUNG
You're going to take a shower, So let's get wet all over	You'll take a shower now, I will show you how. To get clean so you'll know That that's the way to go.
Get wet all over.	
Get your washcloth wet.	So come along and see How much fun it will be. That's the way we start To bathe, you see.
Soap your washcloth.	
Put down the soap and let's go! Face! Forehead!	Your forehead is the place To start to wash your face. And then your cheeks you do.
Cheeks!	You want to wash them, too.
Nose!	Your nose is in between, Be sure to get it clean.
Chin!	Then chin--scrub up and down And all around!
Ear! Inside! Out! Around!	Now go inside your ear, You know you have to hear. Go around it, too,
Uther Ear! Inside! Out! Around!	It's what you have to do. Your other ear comes now, You can show me how. You go inside it, too, And all around.

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Neck!

All around!

Shoulders!
Around!

Put your washcloth in your
other hand and wash your
Other shoulder!

Around!

Chest! Up and Down!

Around!

Arms! Start at top!
Around!

Put your washcloth in your
other hand and wash your
Other arm! Start at top!

Around!

Sides! They're under your arms!
Lift one arm high!
Side!
Armpit!

Put your washcloth in your
other hand and lift your
Other arm high!
Side!
Armpit!

Back! Lean over!

Up and down!

Your neck is next in line,
You're doing it just fine.
Wash it round and round,
So you can go to town.

Your shoulders need it, too,
So scrub around one, do.
Wash it back and front,
It's quite a stunt!

Two shoulders--don't forget,
You haven't done one yet.
Wash back around it now,
I see that you know how.
Wash up and down your chest,
You can't take any rest.
Scrub it all around
To look your best!

You wash an arm like this
All 'round so you don't miss.
From top down to your hand,
I'm sure you understand.

Now wash the other one,
Just like the way you've done
Around, down to your hand,
Oh, my, that's grand!

Now, lift one arm up high,
Scrub up and down your side.
Wash your armpit, too,
That's one thing you must do.

Now, lift this arm up high,
Wash up and down your side.
Wash your armpit, too,
Until you're through!

You wash your back side, too,
It's rather hard to do.
Wash up and down your back
Don't forget the crack.

Hips!
Around!

Now, you wash one hip,
All around one hip.
Wash it very clean
That's how I mean!

Other hip!
Around!
Up and down!

Now, wash your other hip,
All around your hip.
Scrub it up and down,
It doesn't help to frown.

Tummy!

Your tummy gets its turn,
It isn't hard to learn.

All the way down!

Wash 'round and up and down,
Down all the way!

Now, rinse out your wash cloth!
And rub some soap in it one more time!
Legs!
Around!
Knee!

Now one leg we'll scrub,
Around and 'round you rub.
Don't forget your knee,
It needs it, you can see.

Other leg!
Around!
Knee!

The other leg you scrub,
Around and 'round you rub.
Be sure you wash each spot
Before you stop!

Feet! Hang on!

One foot you must lift now,
You can show me how.

Between your toes!

Scrub between your toes,
They need it, goodness knows.

Heel!

Your heel you must do, too,
To make it look like new,

Top and bottom!

And don't forget the bottom
Of your foot!

Other foot! Hang on!

Now, wash the other one,
Be sure that you hang on.

Between your toes!

Wash between your toes,
They need it, goodness knows.

Heel!

Now, wash your other heel,
Oh, how good you will feel,

Top and bottom!

When you are clean and neat
From head to feet!

Step into the shower to rinse!
Turn 'round and 'round!
Arms up high!

Now, you're clean, I hope,
But full of sudsy soap,
With both arms held up high,
To rinse it off we'll try.

Around!

Go 'round and 'round again,
It feels almost like rain,
And all those soapy suds
Go down the drain!

Step out of the shower!
Get your towel!

Take your towel, do,
With washing you are through.
But you are still all wet,
See how dry you can get.
Dry your hair!
Be sure to dry your hair,
I know that you don't care,
Rub it hard all over!
To have it dripping down
So rub it 'round!

Face!
All over!
Ear! Inside!
Around!
Other ear!
Inside and 'round!
Neck!
All around!

Next you dry your face,
Dry it every place.
Now, go inside one ear
And all around, you hear.
Your other ear, you know,
Inside and 'round it go.
Then all around your neck
In front and back!

Shoulders!
Front! Back!
Other shoulder! Front! Back!

Chest!
All around!

Dry your shoulders now,
I'm sure that you know how.
Your other shoulder, back,
You're really on the track.
Now, up and down your chest,
And do your very best,
I'm sure that you will try
To get it dry!

Arms!
Start at the top! Around!
Other Arm!
Start at the top! Around!
Lift it high!
Side!
Up and down!

Next one arm you dry,
Around and 'round, please try.
Then dry the other one,
Around and 'round, it's fun.
Then lift it way up high,
So you can dry your side.
Up and down your side
Until it's dry!

Other side! Lift your other arm!

Up and down!

Back! Lean over!

Hip!
Around!

Now, dry your other side,
Lift your arm up high.
Up and down you go,
To get it dry, just so.
Now, you dry your back,
Down, down, down your back.
Now, hip and you must try
To get it dry!

Other hip!
All around!
Tummy!

Up and down!

All the way down!

Dry your other hip,
Dry all around your hip.
Your tummy still is wet,
You haven't dried it yet.
So rub it up and down,
Be sure to dry way down.
And now that it is dry
Your legs you'll try!

Legs! Start at the top!
Around! Down!

Other leg! Start at the top!
Around! Down!

Feet! One foot!
Between your toes!
Heel!
All around your foot!
Other foot!
Heel!
Between your toes!
All around your foot!

Hang up your towel!

Now, you dry one leg,
Around and down one leg.
Be sure to dry in back,
Now, you're on the track.
Now, dry the other leg,
Down and 'round that leg,
Get it very dry
Then feet you try!

Now, lift one foot to dry,
Between your toes, please try.
Be sure to dry your heel,
How good it makes you feel.
The other foot comes last,
But don't dry it too fast,
Your heel--between each toe,
The way to go!

You're squeaky clean and dry,
Now, hang your towel up high.
You're spic and span--and wait
You look just great!

IRONING PROGRAM. The data from the testing of the original Ironing
Program indicated that many of the behaviors programed are acquired completely
only after the basics have been learned. It is possible that performance on
these items will improve over time once a student has learned the basics of
ironing. The Ironing Program, therefore, was narrowed in scope and reduced
in terms of number of programed behaviors from 532 to 95. The programed
materials were modified to provide a visual cue for each of the 95 behaviors.
A student learns each of the behaviors, then uses the visual cue as a reminder
of what to do next. A preliminary look at the data indicates that the students
are learning to anticipate many of the next steps and are thus becoming less
dependent upon the visual cues.

FACE SHAVING PROGRAM. Pre- and posttest differences on the 19 students
tested in the Face Shaving Program are presented in Figure 10. Session-by-
session data on 13 of the students is presented i Figures 11 through 23.
The checklist used to collect the pretest, session-by-session, and posttest
data (see Lent, Data Collection) has proven reliable. Pre- and posttest

Figure 10

FACE SHAVING PROGRAM

PRE TO POSTTEST CHANGE

POSTTEST
PRETEST

PERCENT OF CORRECT BEHAVIORS

SUBJECTS

Figure 11

FACE SHAVING

SUBJECT 1

Unit Five

Unit Four

Unit Three

Unit Two

Unit One.

SESSIONS

PERCENT OF CORRECT BEHAVIORS PER UNIT

per test · 1 · probe · 2 · probe · 3 · probe · 4 5 · probe · 6 · probe · 7 8 9 · post test

Figure 12

FACE SHAVING

SUBJECT 2

PERCENT OF BEHAVIORS CORRECT PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

Unit One

SESSIONS

Figure 13

FACE SHAVING

SUBJECT 3

PERCENT OF BEHAVIORS CORRECT PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

Unit One

SESSIONS

Figure 14

FACE SHAVING

SUBJECT 4

PERCENT OF CORRECT BEHAVIORS PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

pre test   1 2 3 4 5 probe 6 7 8 probe 9 11 13 probe 14 16 probe 18 20 22 probe 24 26 post test

Unit One

SESSIONS

Figure 15

FACE SHAVING

SUBJECT 5

PERCENT OF CORRECT BEHAVIORS PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

1 2 3 4 5 6   7 8 9 10 11   12   14   16   17   19   21   22   24   26

pre test   probe   probe   probe   probe   post test

Unit One

SESSIONS

31

Figure 16

FACE SHAVING

Figure 17

FACE SHAVING

SUBJECT 7

PERCENT OF CORRECT BEHAVIORS PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

pre test   1 2 3 4 5 6   probe   7 8 9 10   12   probe   13   15   17   probe   18   20   22   probe   23   25   27   post test

Unit One

SESSIONS

33

Figure 18

FACE SHAVING

SUBJECT 8

PERCENT OF CORRECT BEHAVIORS PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

Unit One

SESSIONS

Figure 19

FACE SHAVING

SUBJECT 9

PERCENT OF CORRECT BEHAVIORS PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

pretest   probe   probe   probe   post test

Unit One

SESSIONS

Figure 20

FACE SHAVING

SUBJECT 10

Figure 21

FACE SHAVING

SUBJECT II

PERCENT OF CORRECT BEHAVIORS PER UNIT

Unit Five

Unit Four

Unit Three

Unit Two

Unit One

SESSIONS

pretest probe probe probe probe probe post test

1 2   3 4 5 6   7 8 9 10 12   13 14   15 17 19 21

Figure 22

FACE SHAVING

SUBJECT 12

Unit Five

Unit Four

Unit Three

Unit Two

Unit One

SESSIONS

PERCENT OF CORRECT BEHAVIORS PER UNIT

Figure 23

FACE SHAVING

reliability, computed by dividing the number of times the two observers agreed on correct student performance by the number of agreements plus disagreements, is presented in Table 2. Reliability on the pretest ranged from 80 percent to 100 percent; posttest reliability ranged from 83 percent to 100 percent, all at or above the 80 percent minimum.

The data on 14 of the 19 students show that the increases in percentage of total behaviors performed correctly averaged 48 percent, with a range from 35 percent to 60 percent. This resulted in final performance averaging 84 percent, with a range from 70 percent to 100 percent of the total number of behaviors in the Face Shaving Program. Five students did poorly, showing an average gain of 30 percent, with a range from 14 percent to 36 percent. Final performance on these five students ranged from 46 percent to 68 percent, with an average posttest of 61 percent of the total behaviors.

The problem with these five students was mainly inconsistency in the application of the training. There were changes of trainers brought about by terminations, changes of schedules, extended home visits, and other factors beyond the control of the Project.

FEMININE SHAVING (renamed Leg and Underarm Shaving). Pre- and posttest differences on the 15 students tested in the Leg and Underarm Shaving Program are presented in Figure 24. Session-by-session data on 11 of the students are presented in Figures 25 through 35. The checklist used to collect the pretest, session-by-session, and posttest data (see Lent, Data Collection) has proven reliable. Pre- and posttest reliability, computed by divi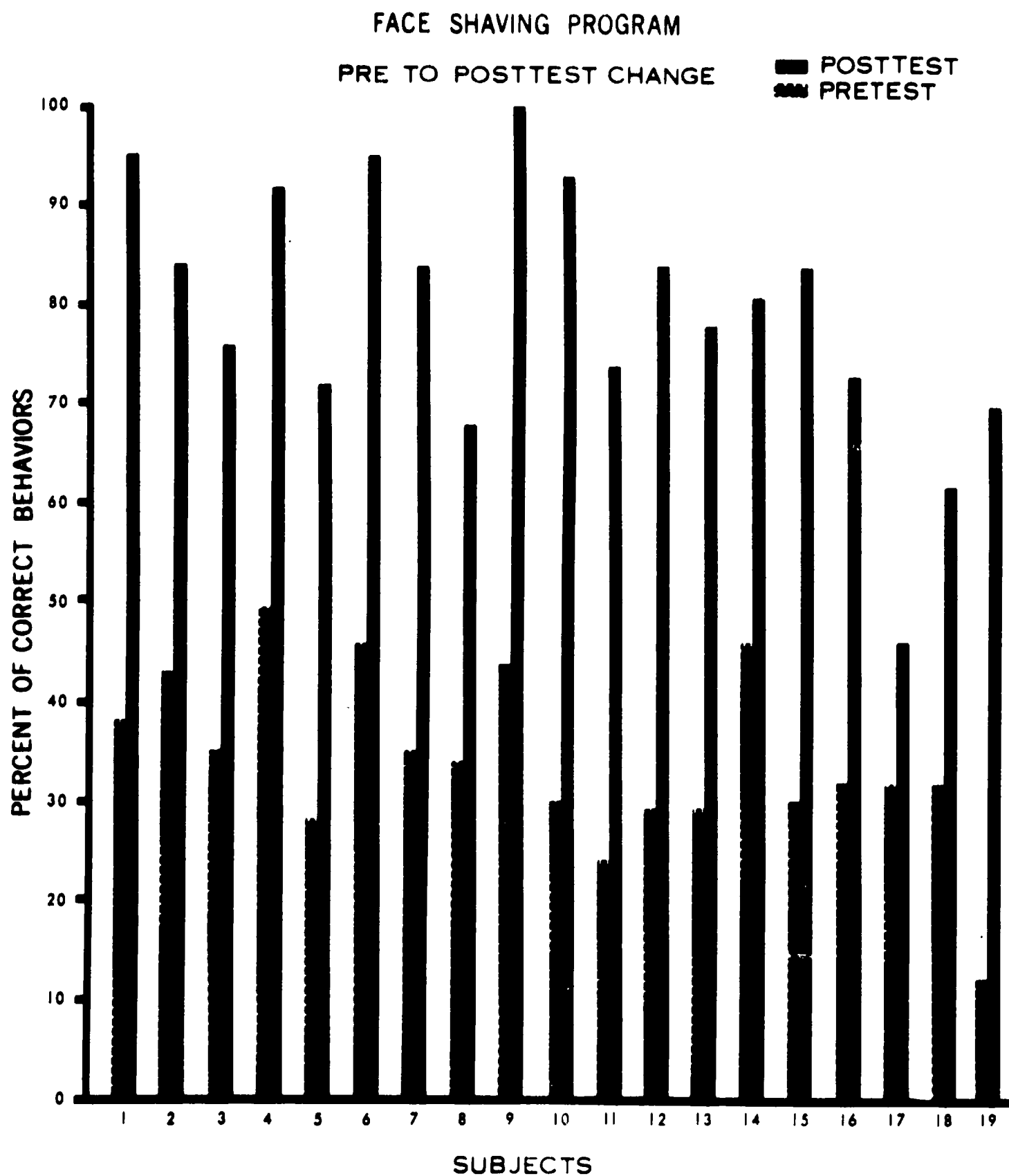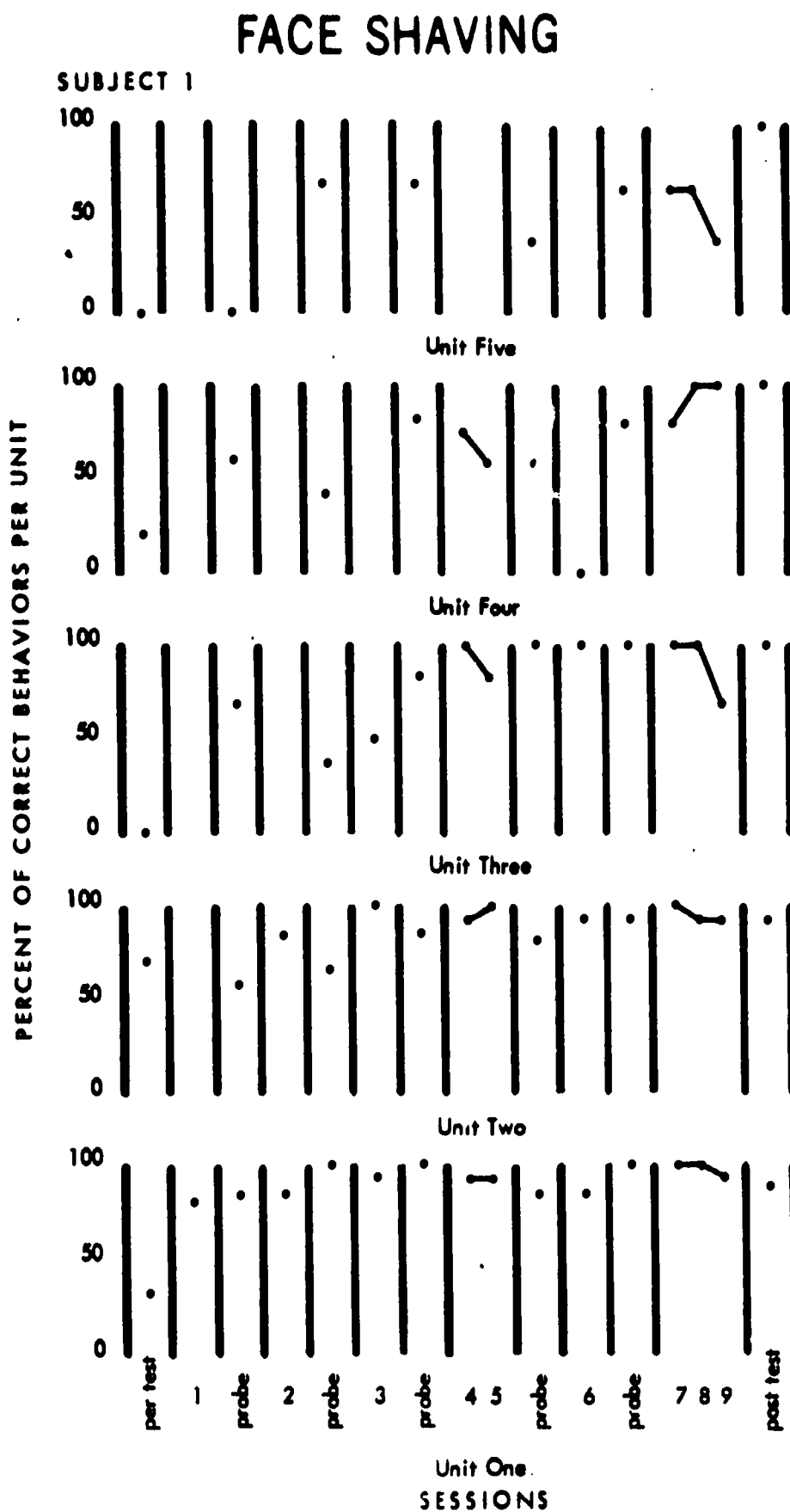ding the number of times the two observers agreed on correct student performance by the number of agreements plus disagreements, is presented in Table 3. Reliability on the pretest ranged from 80 percent to 100 percent, posttest reliability ranged from 81 percent to 100 percent, all at or above the 80 percent minimum.

Table 2   BEST COPY AVAILABLE

Data Summary Sheet	Project MORE
	Mediated Operational Research for Education

PRETEST AND POSTTEST DATA SUMMARY SHEET

(Raw Score/Percent)

PROGRAM: FACE SHAVING

NUMBER OF BEHAVIORS SCORED: 36 TO 41

Subject	PRETEST		POSTTEST		REALIABILITY	
	Observer A	Observer B	Observer A	Observer B	Pretest	Posttest
Tom Clinkenbeard	14/38%	14/38%	35/95%	100%	95%	95%
Bob Wilbur	16/43%	16/43%	30/81%	31/84%	100%	97%
Lynn McDonald	12/32%	13/35%	28/76%	28/76%	97%	100%
Jinks Thomas	18/49%	18/49%	36/100%	33/92%	95%	93%
Carl Heffner	10/28%	10/28%	26/72%	23/64%	100%	95%
R. Faircloth	17/46%	17/46%	35/95%	35/95%	100%	100%
Doug Coffey	13/35%	11/30%	31/84%	31/84%	95%	89%
Bill Shastak	13/32%	14/34%	28/68%	24/59%	95%	85%
David Boese	15/37%	18/44%	100%	100%	90%	100%
Virgil O'Leary	14/34%	11/30%	37/90%	38/93%	88%	98%
Ted Jacobs	8/20%	10/24%	26/63%	27/66%	95%	88%
Dennis Songs	20/49%	12/29%	37/90%	31/84%	80%	83%
Steve Tucker	12/29%	14/34%	36/88%	32/78%	83%	98%
J. Jones	19/51%	17/46%	30/81%	30/81%	92%	94%
Gary Fladung	11/30%	9/24%	31/84%	30/81%	97%	92%
Kirk Krie	12/32%	11/30%	27/73%	28/76%	97%	92%
R. Wells	12/32%	13/35%	17/46%	17/46%	97%	89%
R. Stroot	12/32%	11/30%	23/62%	20/54%	92%	92%
W. Huffman	5/14%	5/14%	26/70%	25/68%	94%	92%

Figure 24
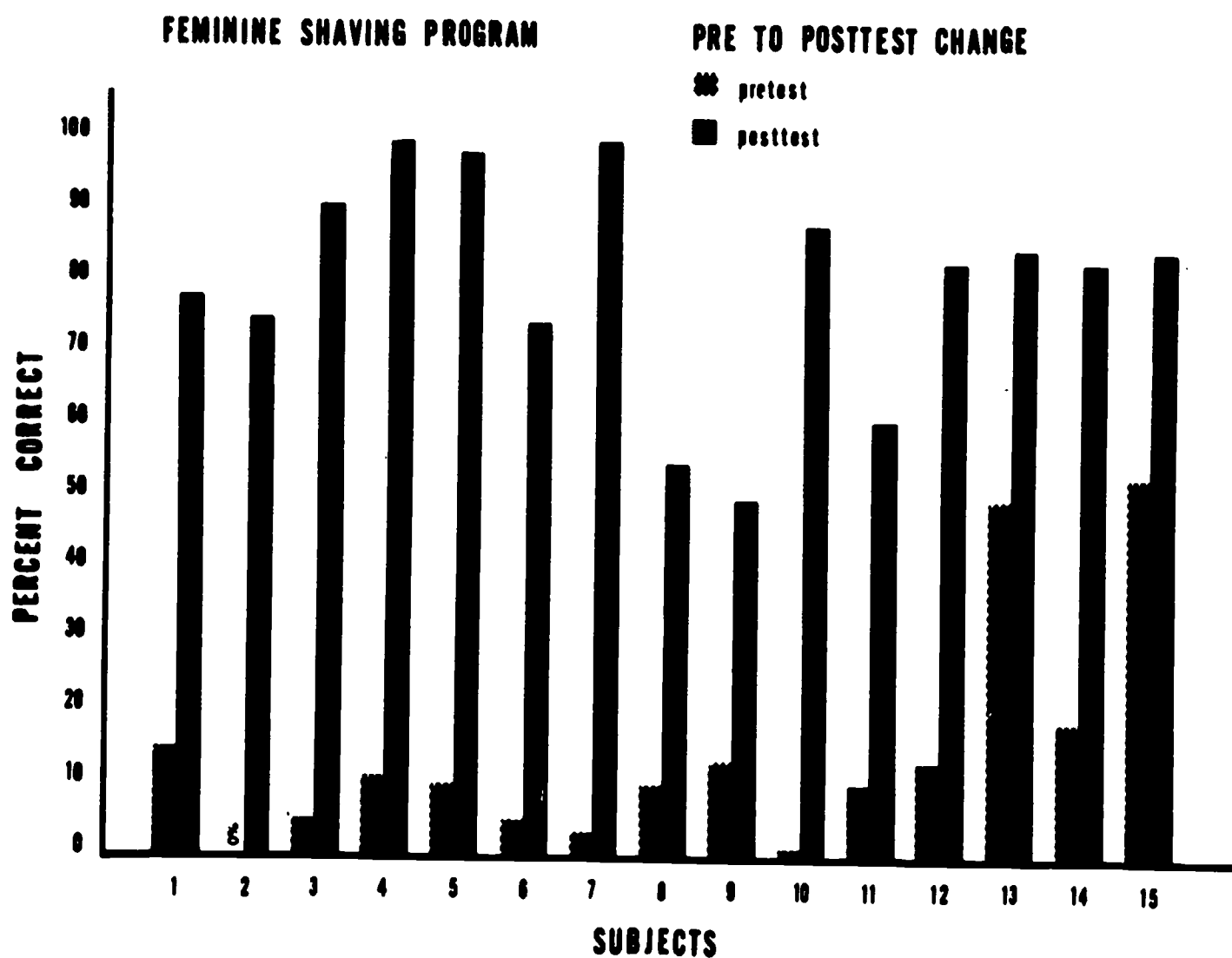
FEMININE SHAVING PROGRAM   PRE TO POSTTEST CHANGE

pretest

posttest

PERCENT CORRECT

SUBJECTS

Figure 25

FEMININE SHAVING PROGRAM
Session-by-Session Data

SUBJECT 1

UNIT 4

UNIT 3

UNIT 2

UNIT 1

PERCENT OF CORRECT BEHAVIORS PER UNIT

PRE TEST   1   POST TEST   2   POST TEST

SESSIONS

43

Figure 26

FEMININE SHAVING PROGRAM
Session-by-Session Data

SUBJECT 2

UNIT 4

UNIT 3

UNIT 2

UNIT 1

PERCENT- OF CORRECT BEHAVIORS PER UNIT

SESSIONS

44

Figure 27

FEMININE SHAVING PROGRAM
Session-by-Session Data

SUBJECT 3

Figure 28

FEMININE SHAVING PROGRAM
Session-by-Session Data

SUBJECT 4

UNIT 4

UNIT 3

UNIT 2

UNIT 1

PERCENT OF CORRECT BEHAVIORS PER UNIT
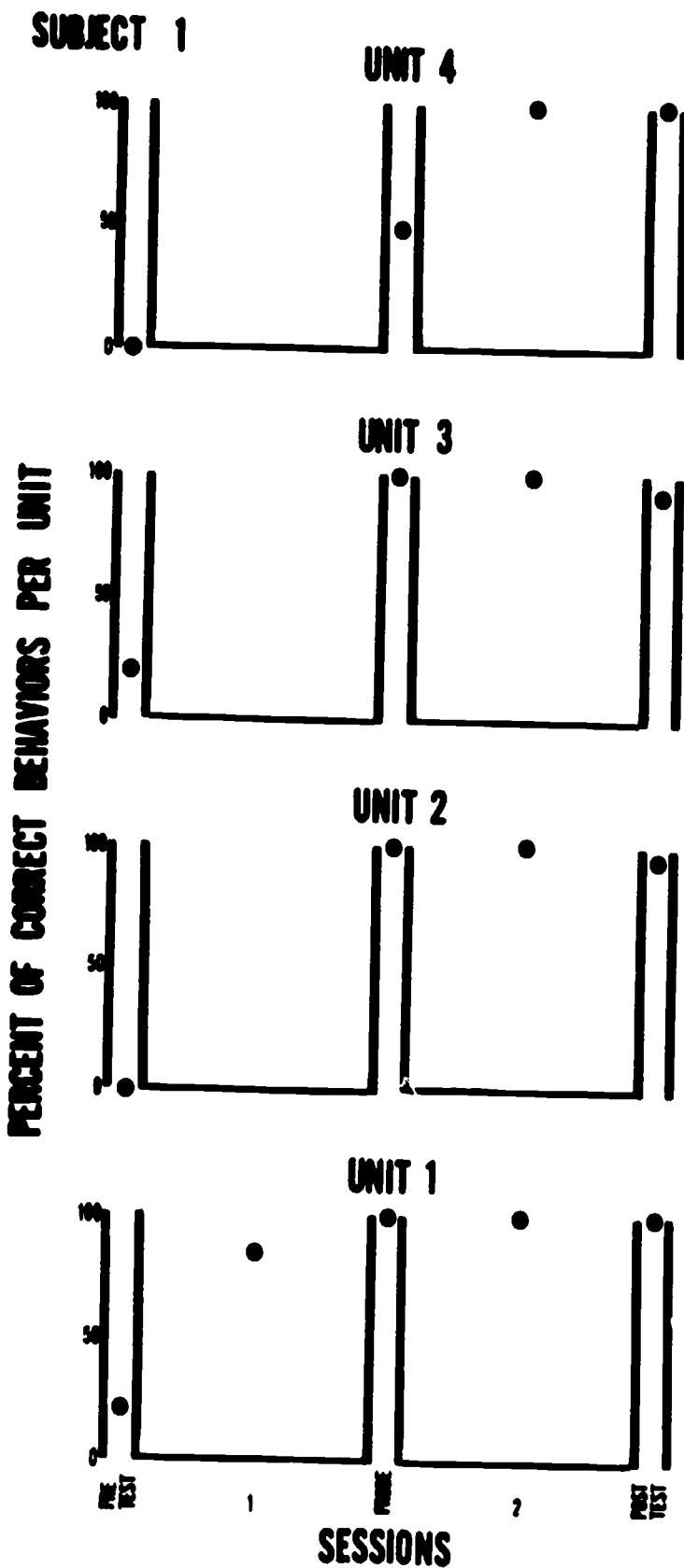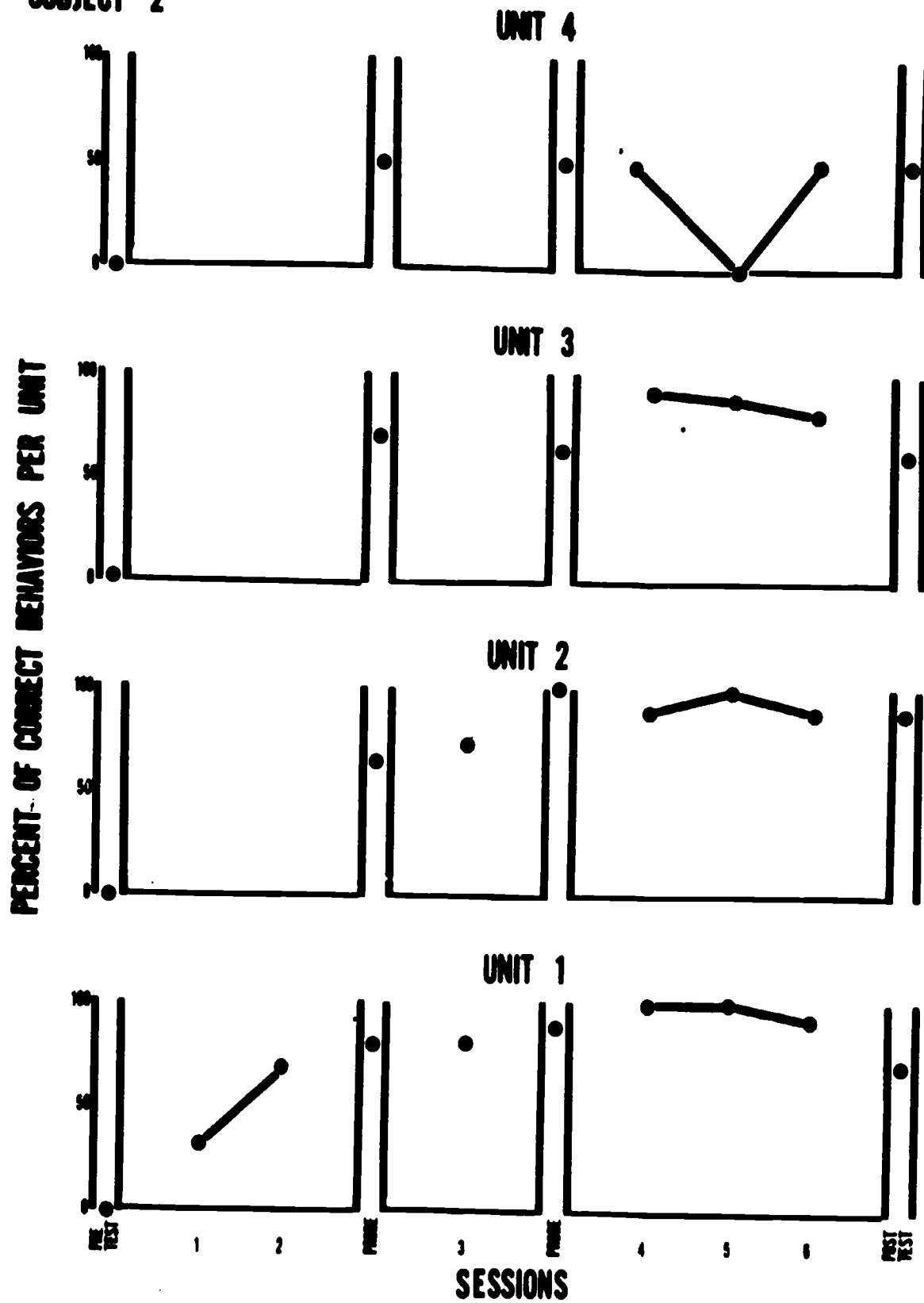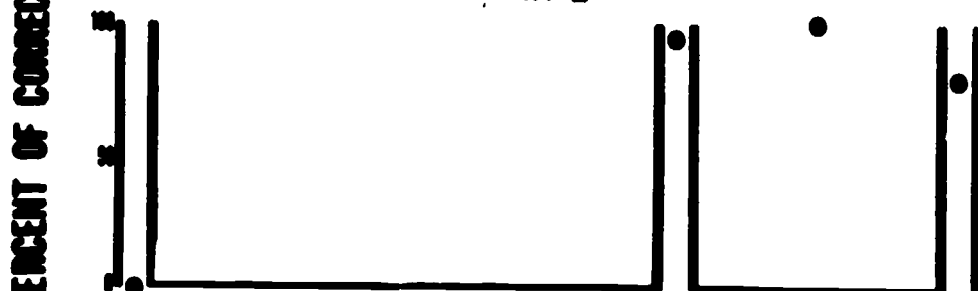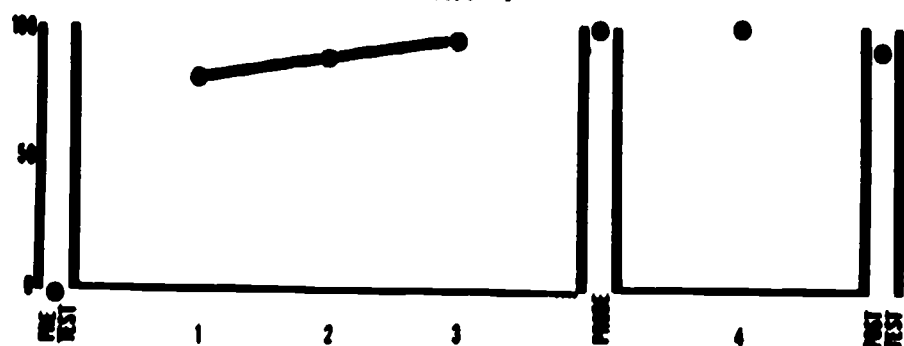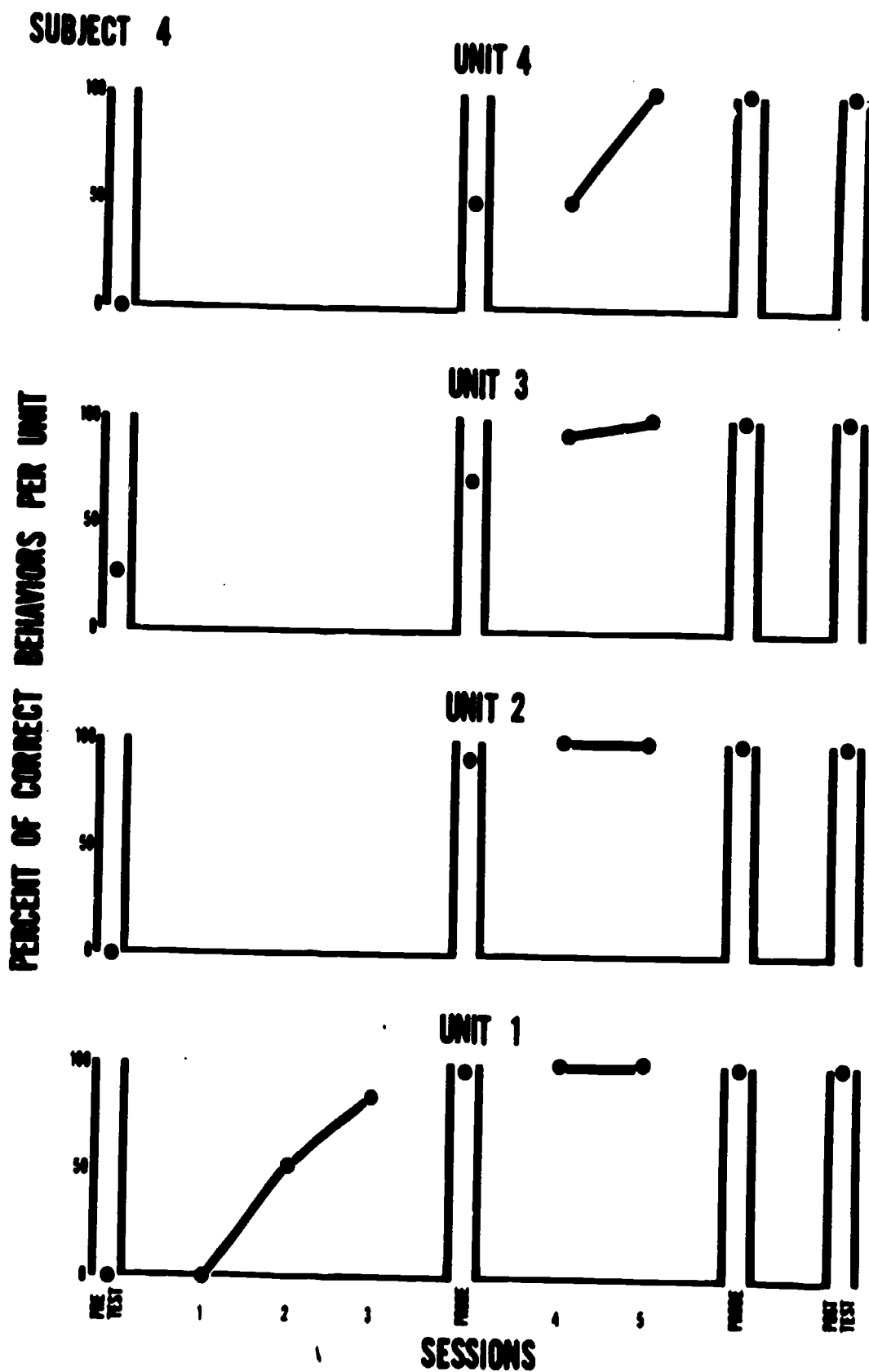
SESSIONS

Figure 29

FEMININE SHAVING PROGRAM
Session-by-Session Data
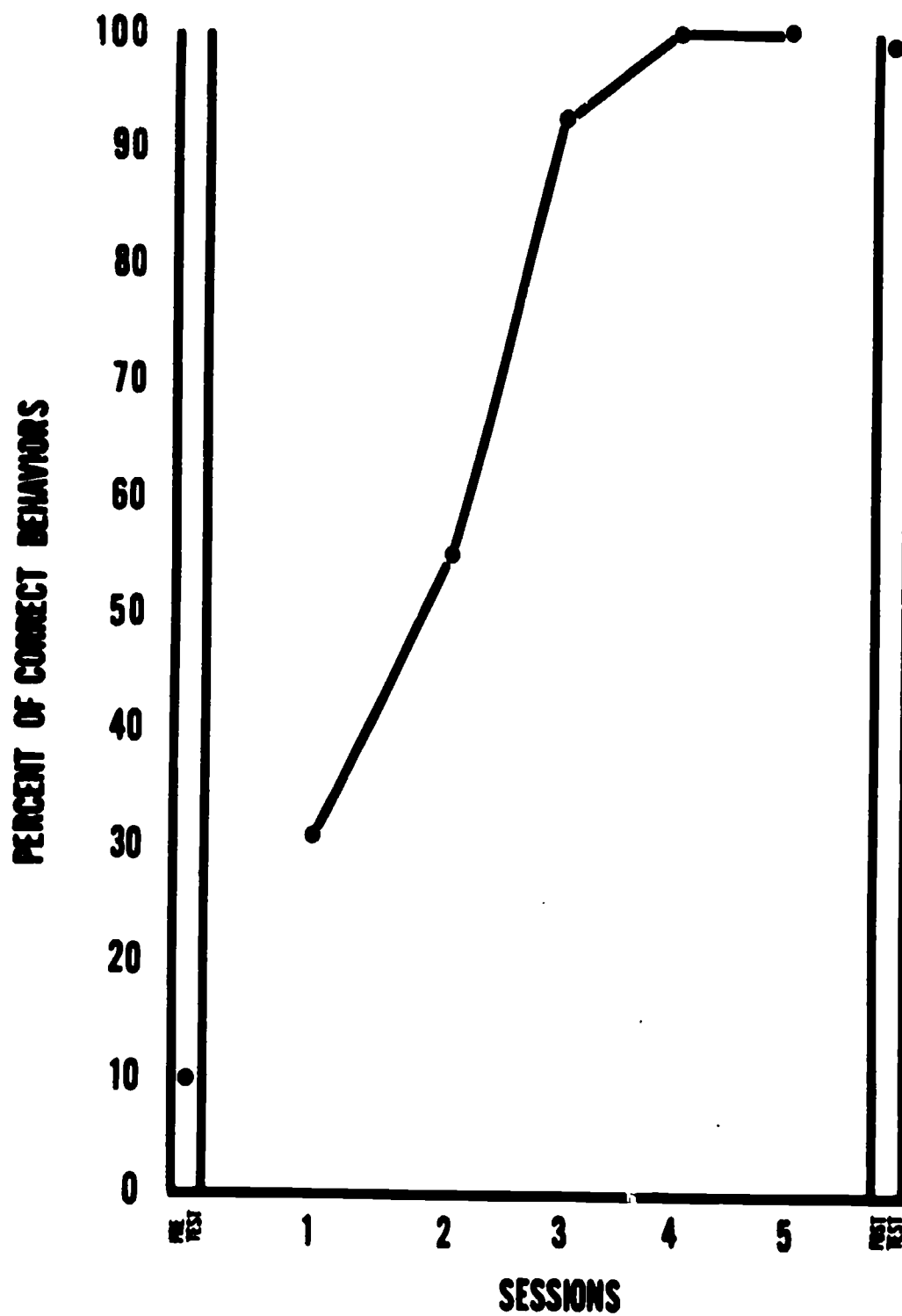
SUBJECT 5

PERCENT OF CORRECT BEHAVIORS

SESSIONS

Figure 30

FEMININE SHAVING PROGRAM
Session-by-Session Data

SUBJECT 6

PERCENT OF CORRECT BEHAVIORS

SESSIONS

Figure 31

FEMININE SHAVING

SUBJECT 7

49

Figure 32

FEMININE SHAVING

SUBJECT 8

SESSIONS

Figure 33

FEMININE SHAVING

SUBJECT 9

PERCENT OF CORRECT BEHAVIORS

SESSIONS
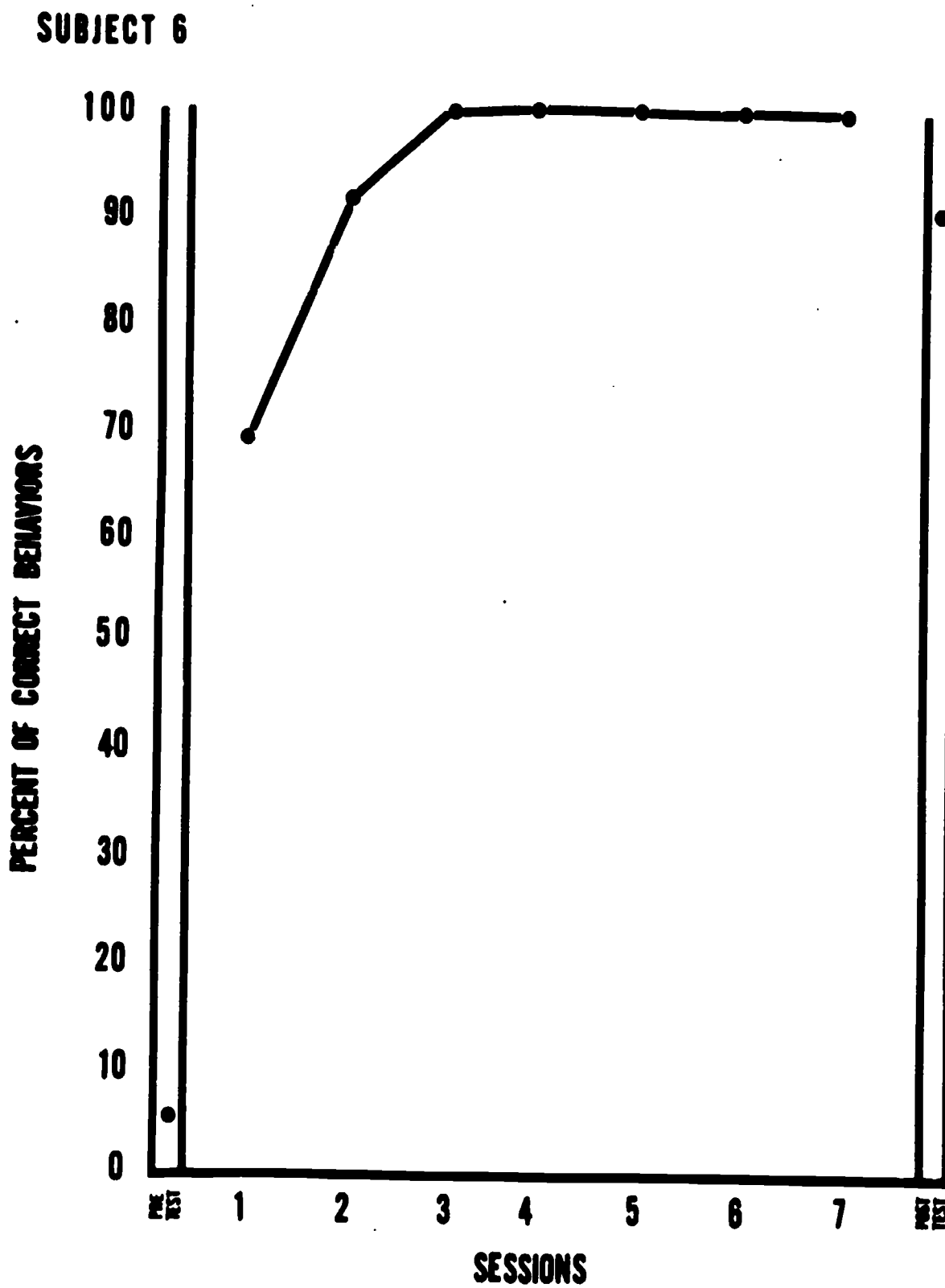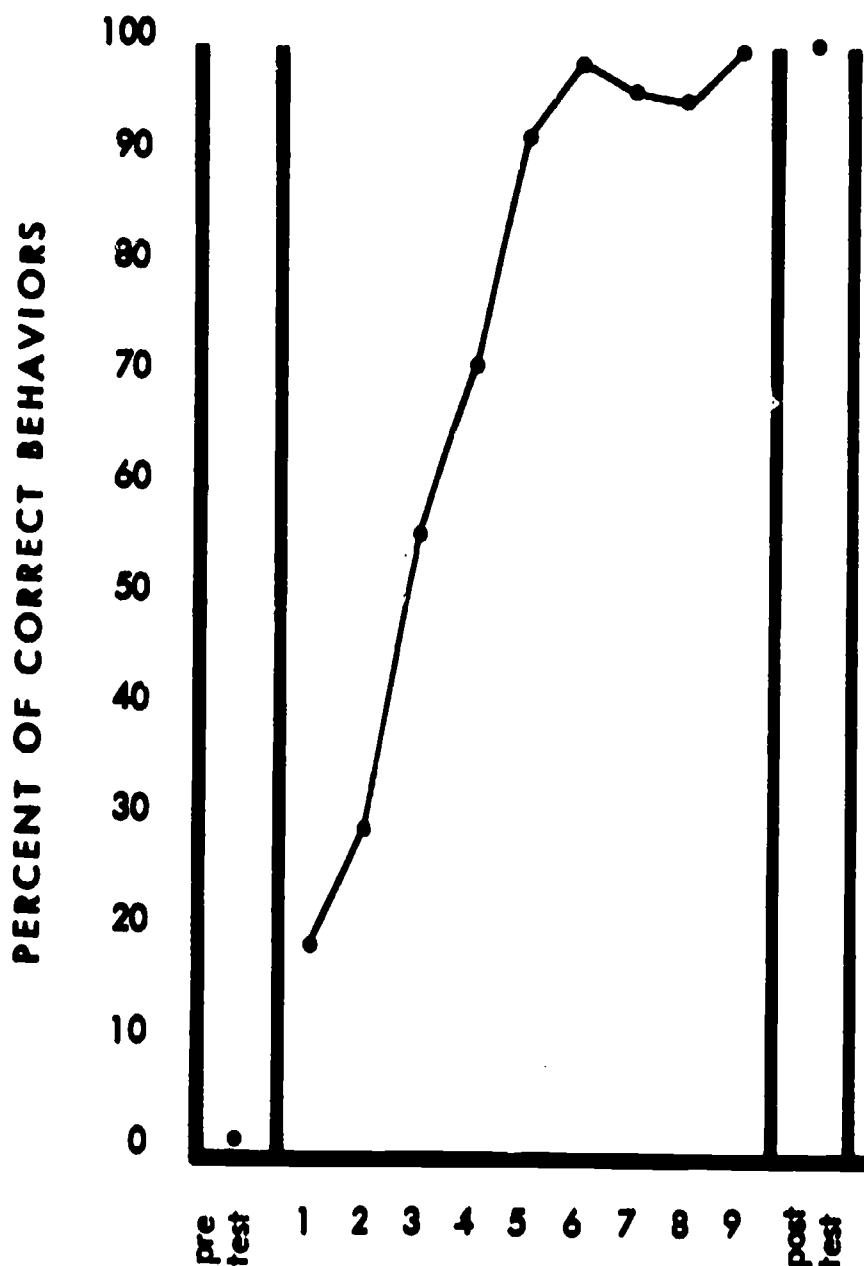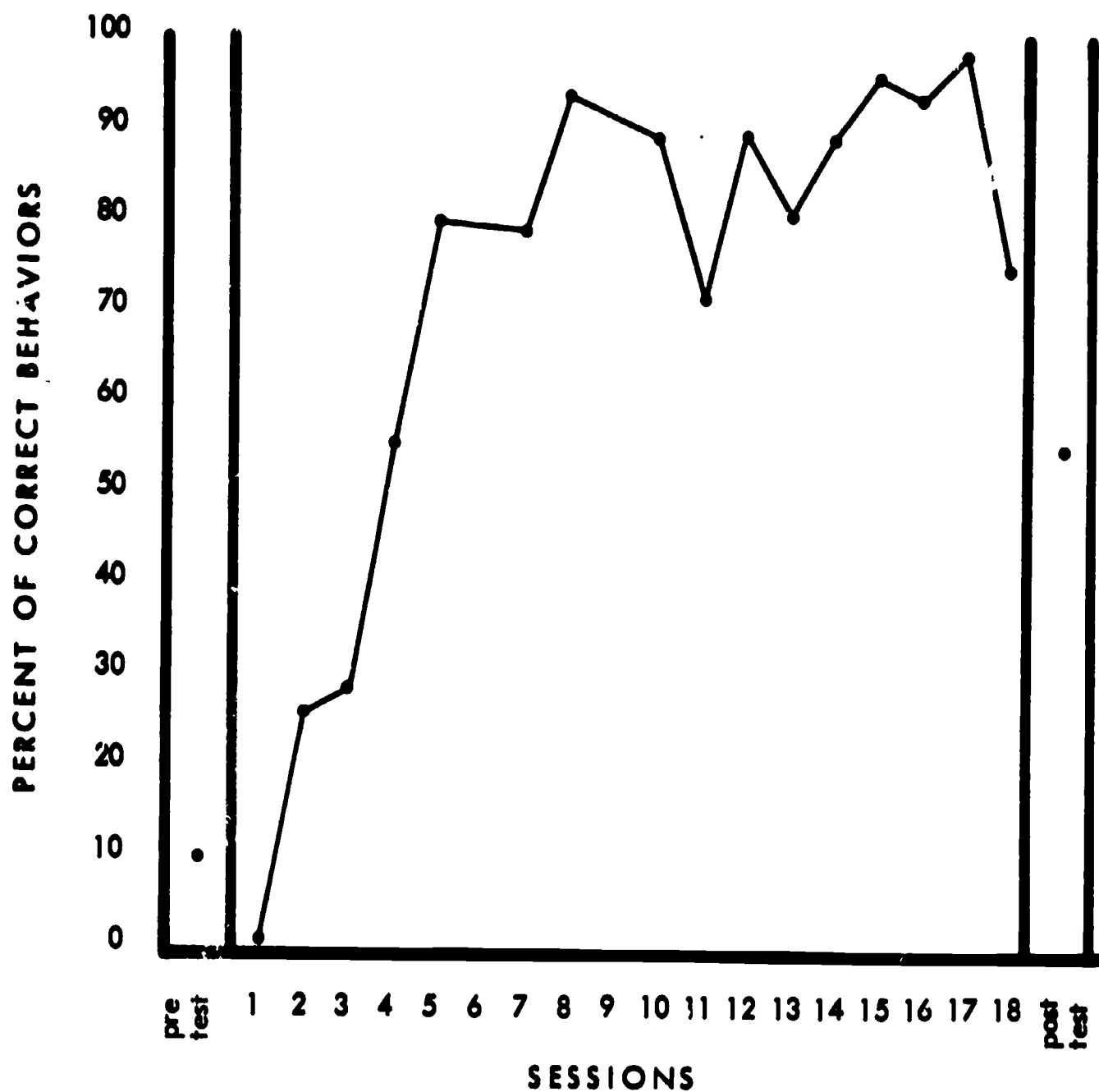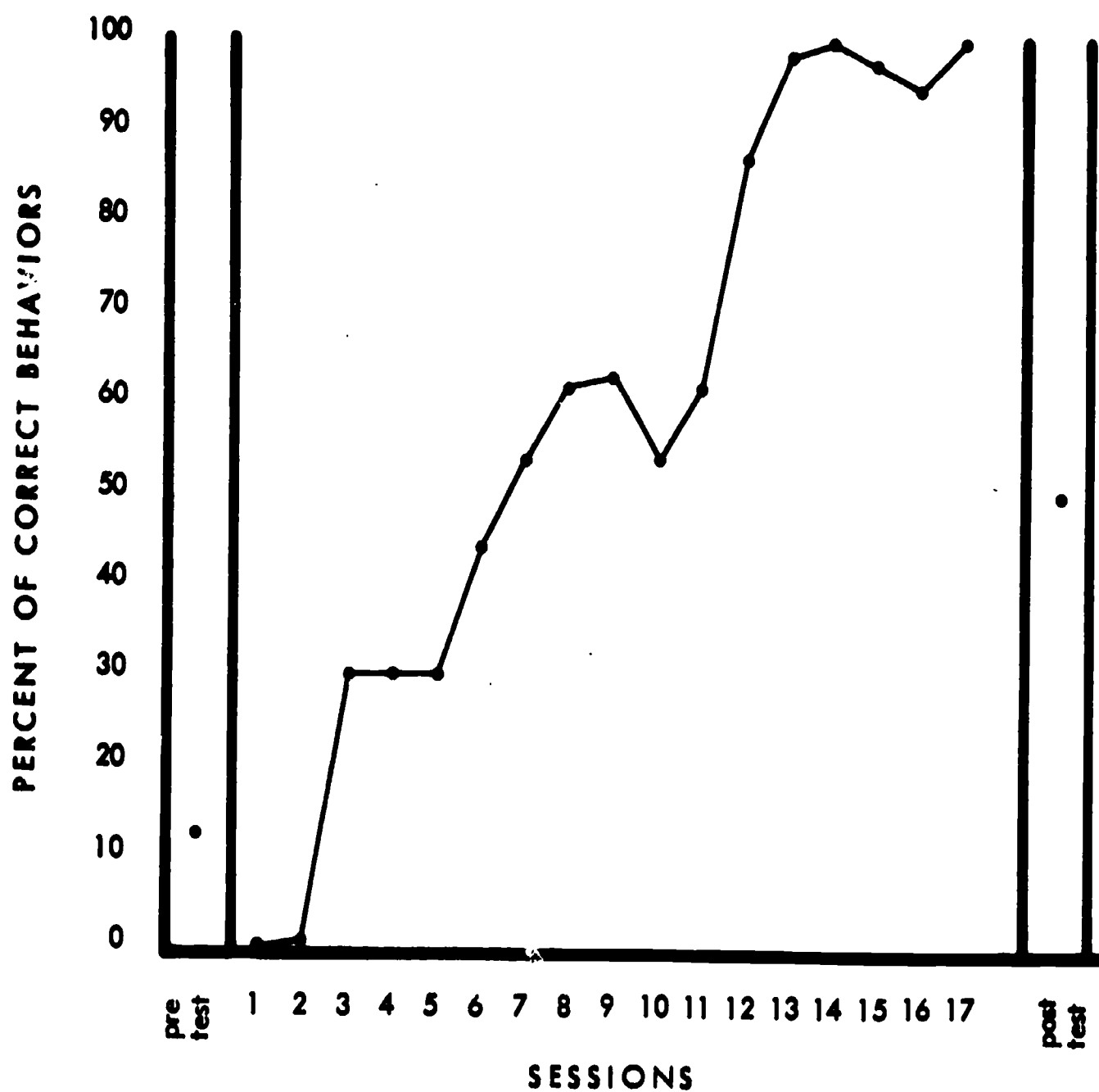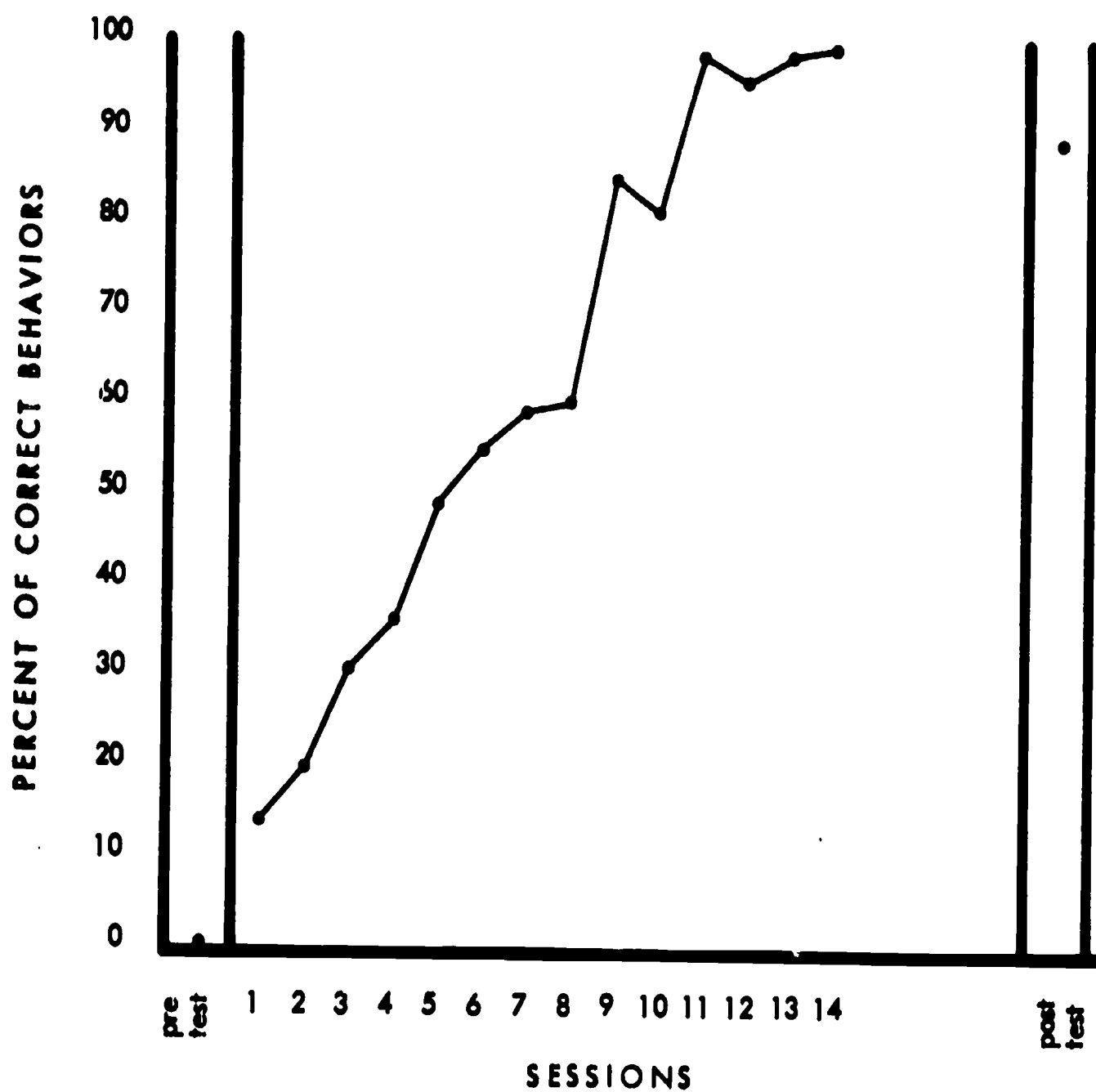
Figure 34

FEMININE SHAVING

SUBJECT 10

Figure 35

FEMININE SHAVING

SUBJECT 11
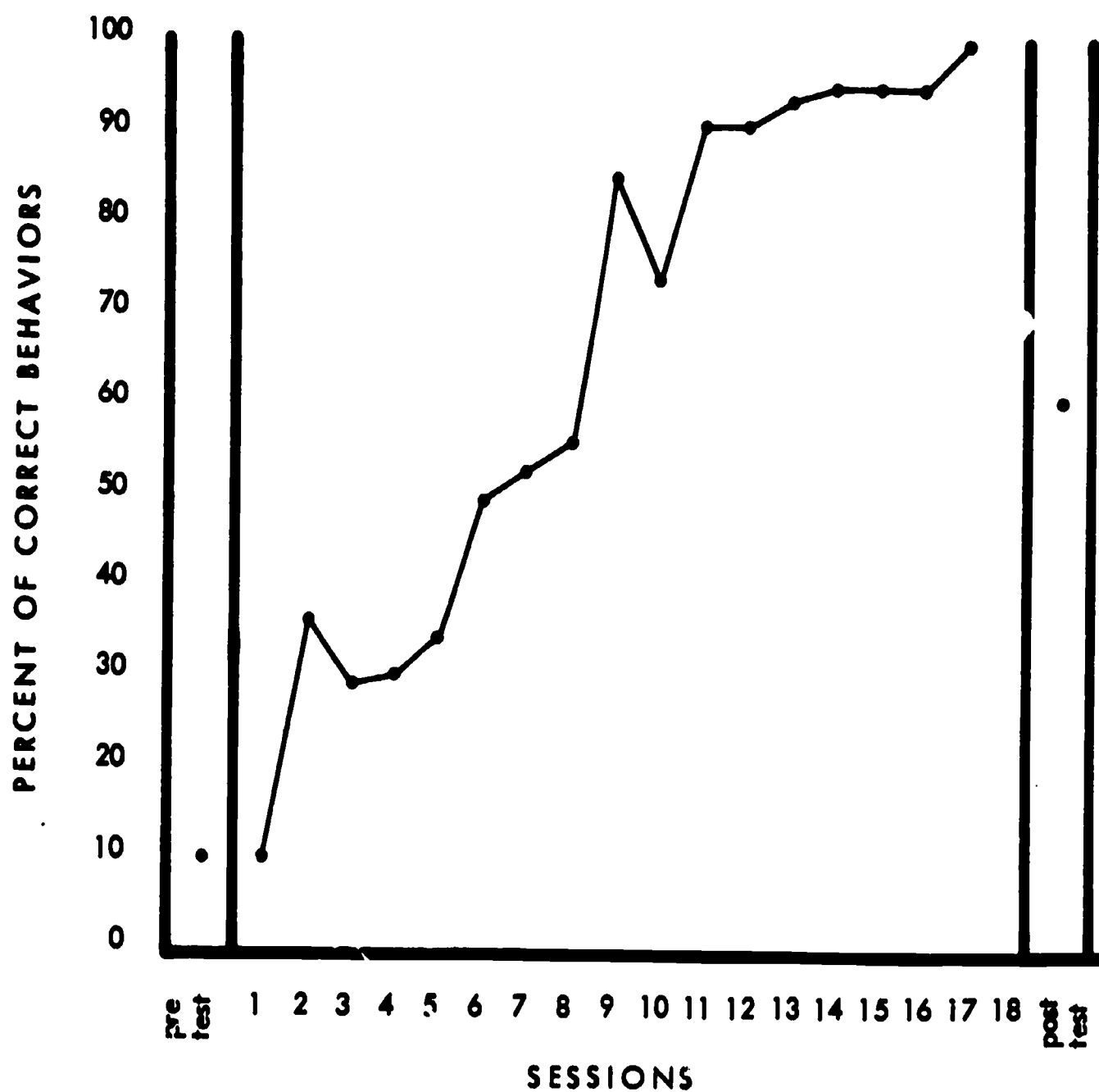
Table 3

| Data Summary Sheet | Project M◯RE — Mediated Operational Research for Education |

PRETEST AND POSTTEST DATA SUMMARY SHEET

(Raw Score/Percent)

PROGRAM: LEG & UNDERARM SHAVING

NUMBER OF BEHAVIORS SCORED: 80 & 54

Subject	PRETEST		POSTTEST		RELIABILITY	
	Observer A	Observer B	Observer A	Observer B	Pretest	Posttest
Shirley Fitzgerald	12/15%	12/15%	62/78%	60/75%	100%	84%
Dana Gilley	1/0%	0/0%	60/75%	62/78%	99%	96%
Lela Hasty	4/5%	8/10%	73/91%	62/78%	93%	81%
Rosalee Wolf	9/11%	9/11%	80/100%	80/100%	98%	100%
Elvie Pierce	8/10%	8/10%	79/98%	79/98%	95%	100%
Melba Moran	0/0%	4/5%	59/74%	61/76%	95%	98%
Patricia Murphy	2/3%	1/1%	80/100%	80/100%	96%	100%
Marsha Mace	6/8%	8/10%	44/55%	44/55%	93%	100%
Karen Thornes	13/16%	10/13%	37/46%	40/50%	91%	89%
Coleen Dixon	1/1%	1/1%	71/89%	76/95%	98%	88%
Susan Jones	8/10%	18/23%	46/61%	42/53%	84%	84%
Kim Potter	29/36%	../31%	68/85%	66/83%	80%	89%
Billie Sue Harris	27/50%	18/34%	46/85%	45/83%	80%	96%
Ann Hollifield	10/18%	11/20%	45/83%	48/88%	83%	92%
Amy Johnston	23/43%	19/35%	46/85%	48/88%	83%	87%

The data on the 15 students show 12 of the 15 students did well with final performance averaging 87 percent and ranging from 75 percent to 100 percent of the total behaviors. This represents increases over pretesting averaging 68 percent, with a range from 32 percent to 89 percent.

Three students did poorly, showing final performance of 50 percent, 55 percent, and 61 percent (average of 55 percent) of the total behaviors. This represents gains over pretesting of 37 percent, 45 percent, and 51 percent (average of 44 percent) respectively. As in the Face Shaving Program, the problem with the three students was mainly inconsistency in the application of the training. There were changes of trainers brought about by terminations, changes of schedules, extended home visits, and other factors beyond the control of the Project.

TOOTHBRUSHING PROGRAM. The results of the testing of the Toothbrushing Program on two groups of four students are each presented in Figures 36 and 37. The baselines on the first group of four fluctuated around five of 15 toothbrushing behaviors. This went to a final performance of 14 to 15 behaviors for three of the four and 11 to 13 for the fourth student. The baselines on the second group of four fluctuated around seven to eight of the 15 toothbrushing behaviors. This went to a final performace of 14 to 15 behaviors for three of the four and 12 to 13 for the fourth student.

Revisions in the Toothbrushing Program 1) shortened the time the student is required to brush each of the specific areas of the teeth (biting surfaces, inside surfaces, outside surfaces) from one minute to thirty seconds, and 2) further elaborated on the systematic use of reinforcement by outlining three levels (social, token, and primary) and a strategy for going from primary to social.

Figure 36
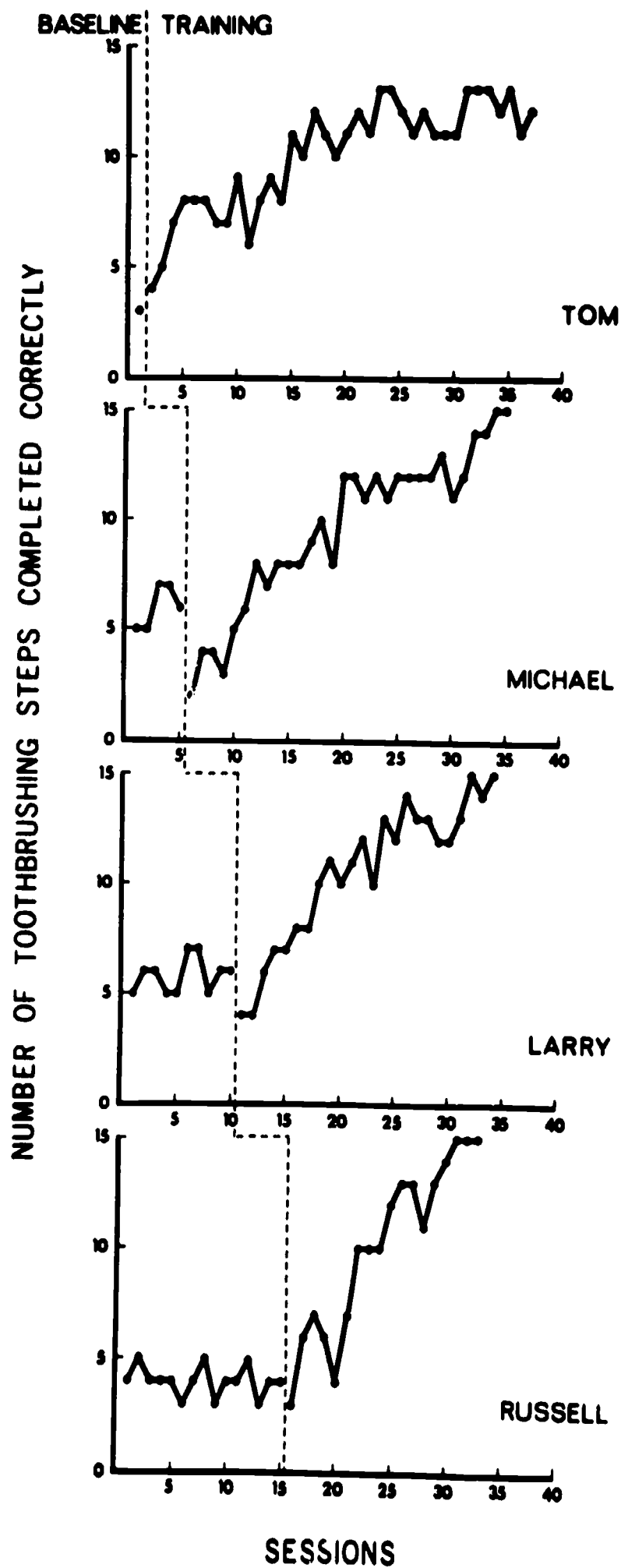
BEST COPY AVAILABLE

Figure 37

JOYCE

SESSIONS

NUMBER OF TOOTHBRUSHING STEPS COMPLETED CORRECTLY
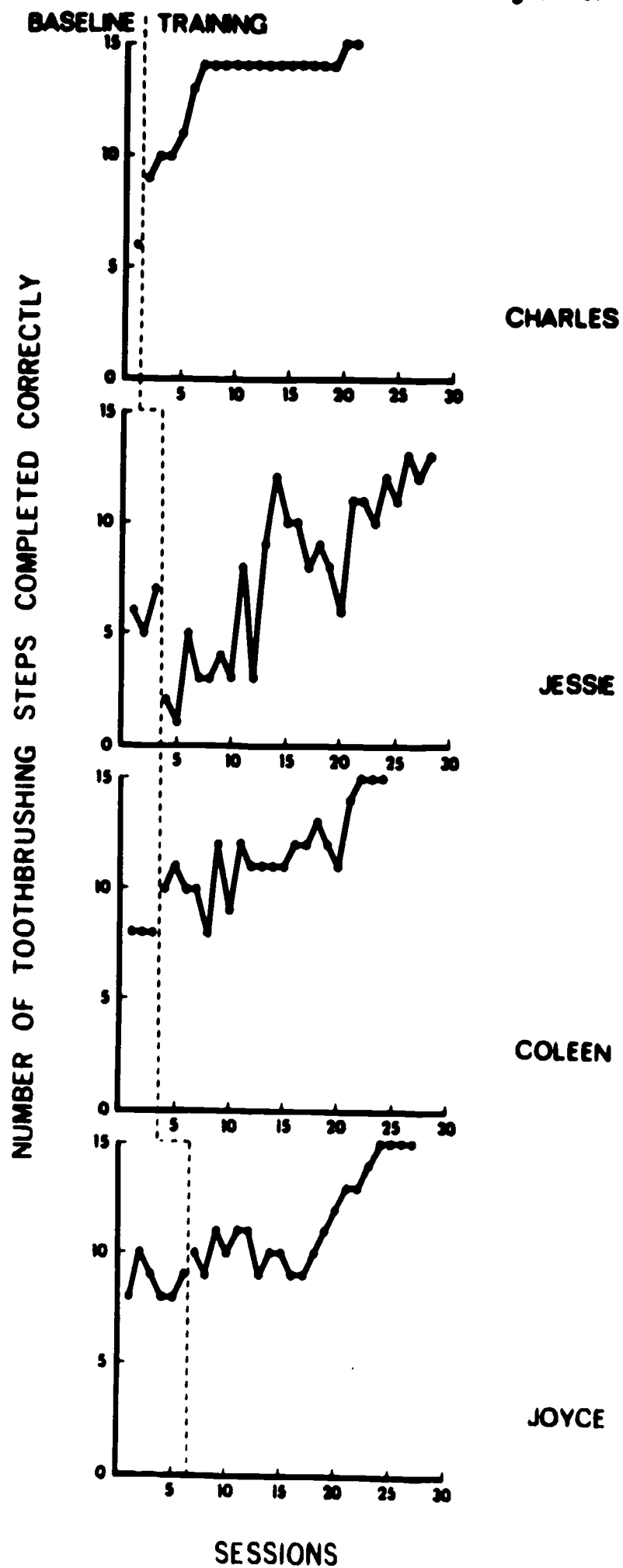
<u>EATING</u> <u>SKILLS</u> <u>FOR</u> <u>DAILY</u> <u>LIVING</u> (formerly Eating Etiquette) <u>PROGRAM</u>.
During the first quarter of the grant year the testing of the Eating Skills
Program was completed. Pretest, session-by-session, and posttest results
on nine students are presented in Figures 38 through 46. The checklist used
to collect the pretest, session-by-session, and posttest data (see Lent,
Data Collection) has not yet proven completely reliable. Pre- and posttest
reliability, computed by dividing the number of times the two observers
agreed on correct student performance by the number of agreements plus
disagreements, is presented in Table 4. Reliability of the pretest ranged
from 70 percent to 63 percent with six of the nine reliabilities falling
below the 80 percent minimum. Posttest reliability ranged from 78 percent
to 100 percent. All but the 78 percent figure are above the 80 percent
minimum. This indicates that getting reliable data on the pretest of the
Eating Skills Program requires having more precise behavioral definitions
than those currently employed. The behavioral definitions will be strength-
ened and the pre- and posttest videotapes rescored in order to report data
that accurately reflects what actually occurred.

The data on the nine students show that eight of the nine students
increased their performance after training. The percent of increase averaged
50 percent and ranged from 19 percent to 67 percent. This increase produced
final performance averaging 94 percent and ranging from 83 percent to 100
percent. One student did not do as well as the other eight. This student
had a 30 percent increase over the pretest, producing a final performance
of 77 percent of the total eating skills behaviors. This student tended to
be disruptive during mealtime and a recommended procedure for dealing with
disruptive mealtime behavior has been added to the program.

Figure 38

EATING ETIQUETTE

SUBJECT 1

UNIT FIVE

UNIT FOUR

UNIT THREE

UNIT TWO

UNIT ONE

SESSIONS

59
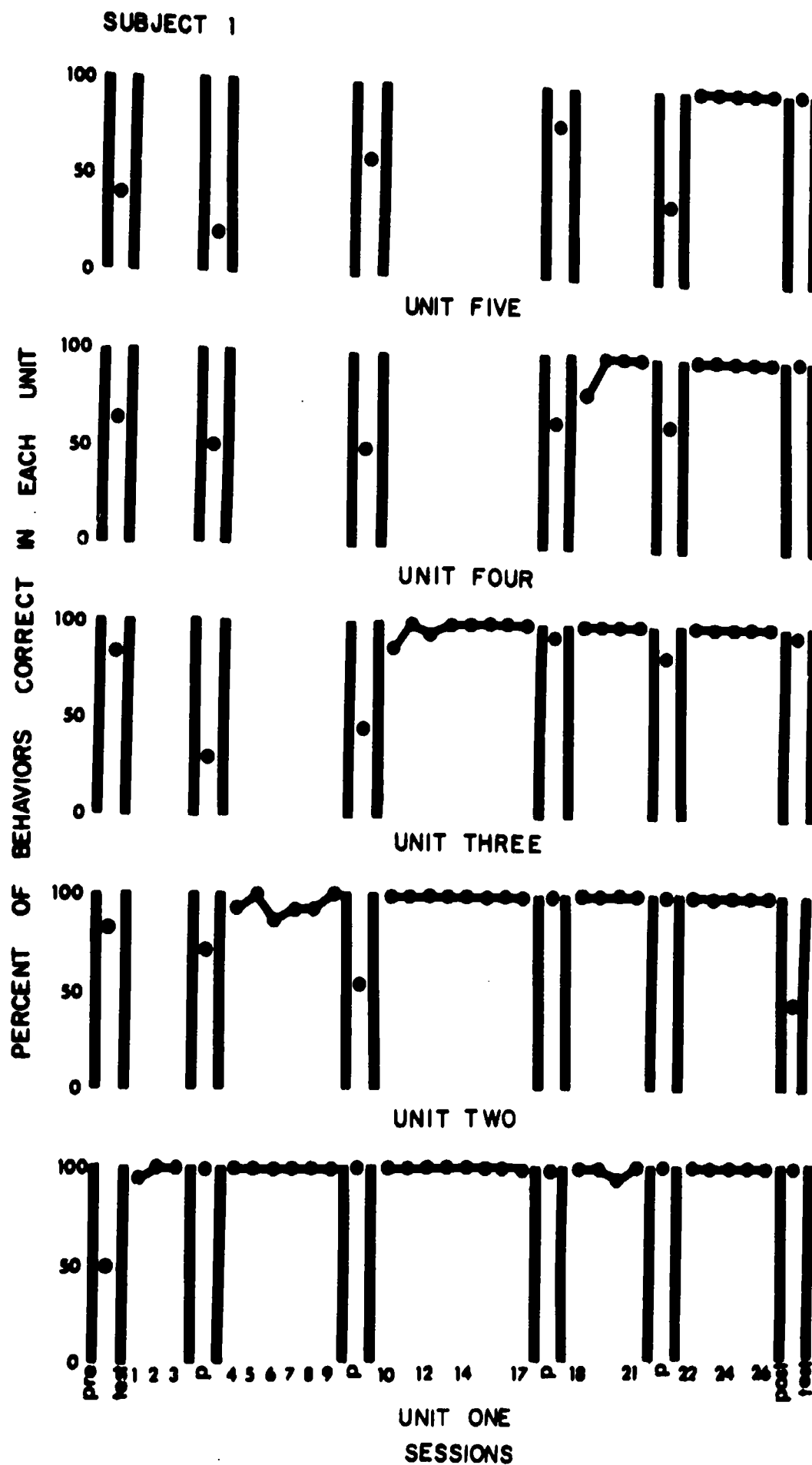
Figure 39

EATING ETIQUETTE

SUBJECT 2

UNIT FIVE

UNIT FOUR

UNIT THREE

UNIT TWO

UNIT ONE

PERCENT OF CORRECT BEHAVIORS IN EACH UNIT

SESSIONS
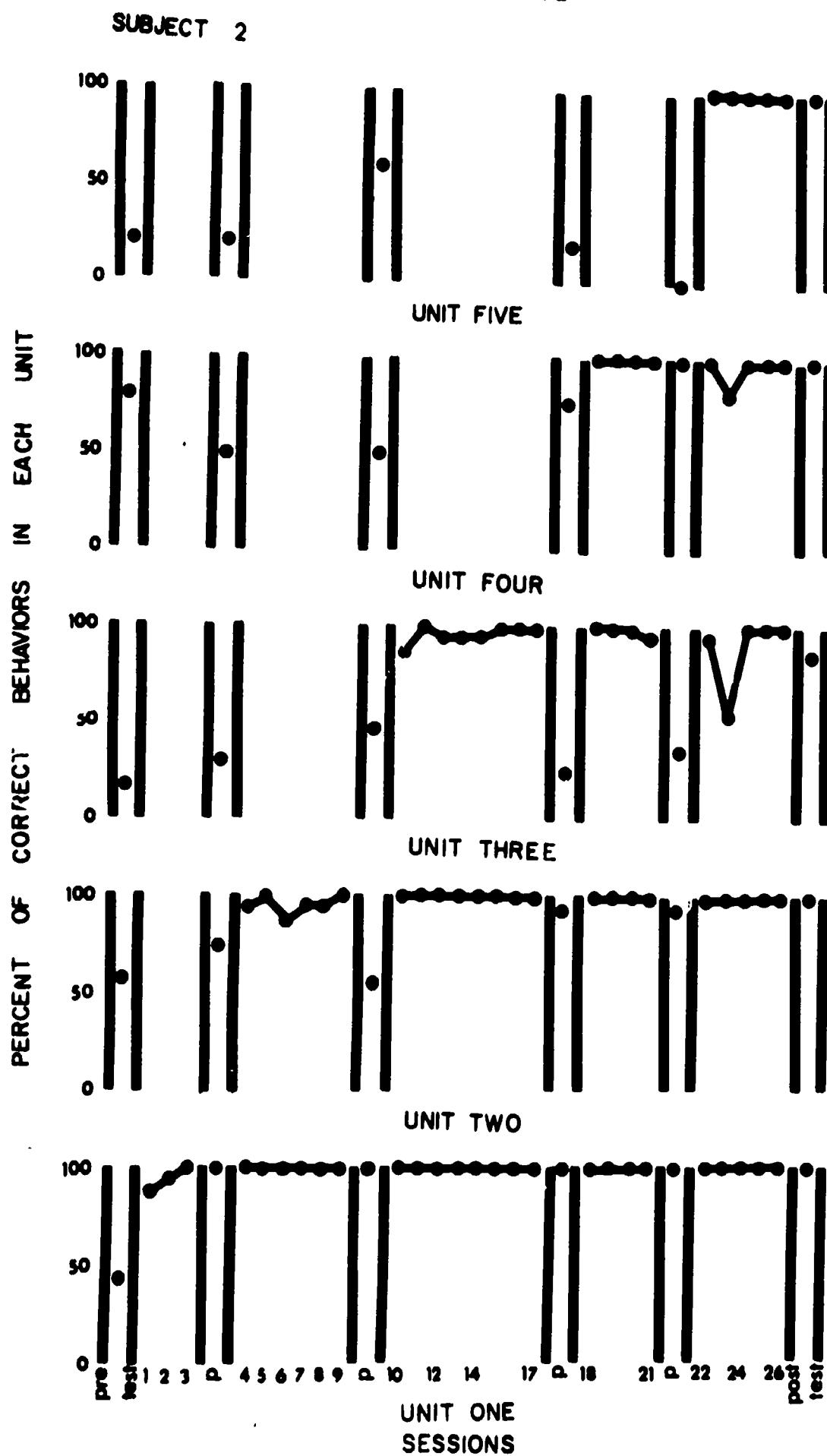
Figure 41

EATING ETIQUETTE
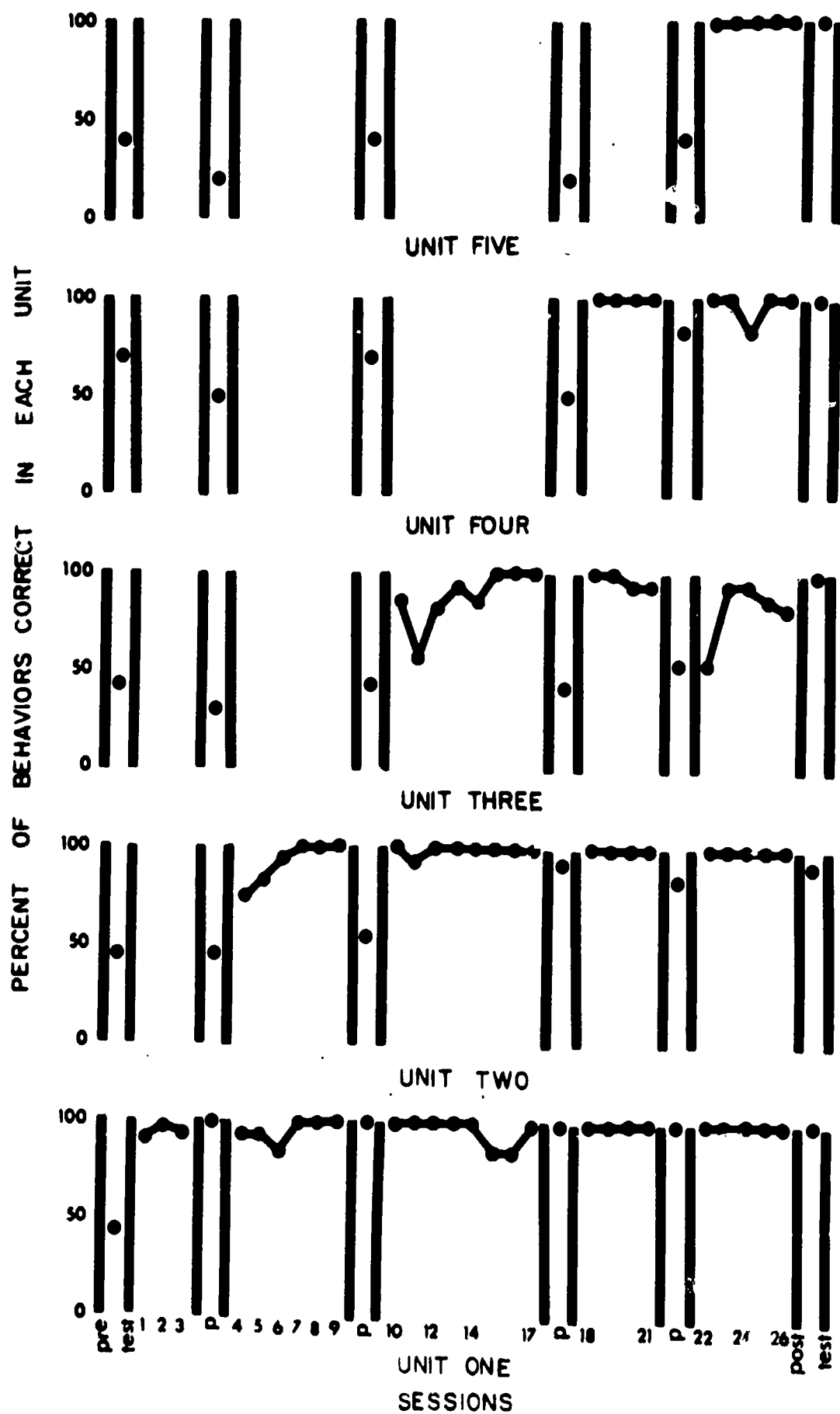
SUBJECT 4

PERCENT OF BEHAVIORS CORRECT IN EACH UNIT

UNIT FIVE

UNIT FOUR

UNIT THREE

UNIT TWO

UNIT ONE

SESSIONS

62

Figure 40

SUBJECT 3   EATING ETIQUETTE

UNIT FIVE

UNIT FOUR

UNIT THREE

UNIT TWO

UNIT ONE

SESSIONS

PERCENT OF BEHAVIORS CORRECT IN EACH UNIT

61

Figure 42

EATING ETIQUETTE

SUBJECT 5

PERCENT OF BEHAVIORS CORRECT IN EACH UNIT

Unit Five

Unit Four

Unit Three

Unit Two

Unit One

pre test

1 2 3 a 4 5 6 7 a 8 9 10 a 11 13 a 14 16 18

post test

SESSIONS

63
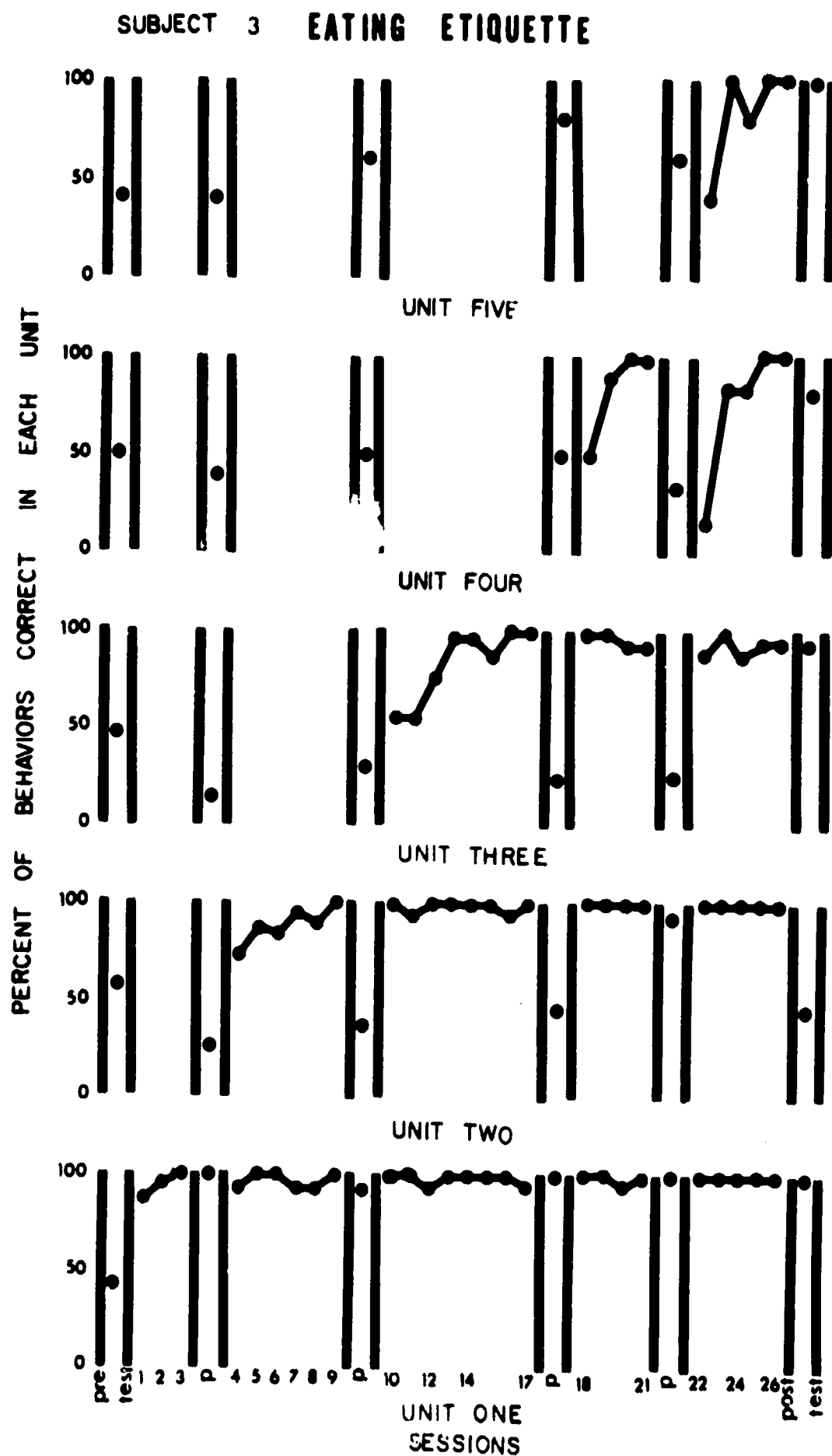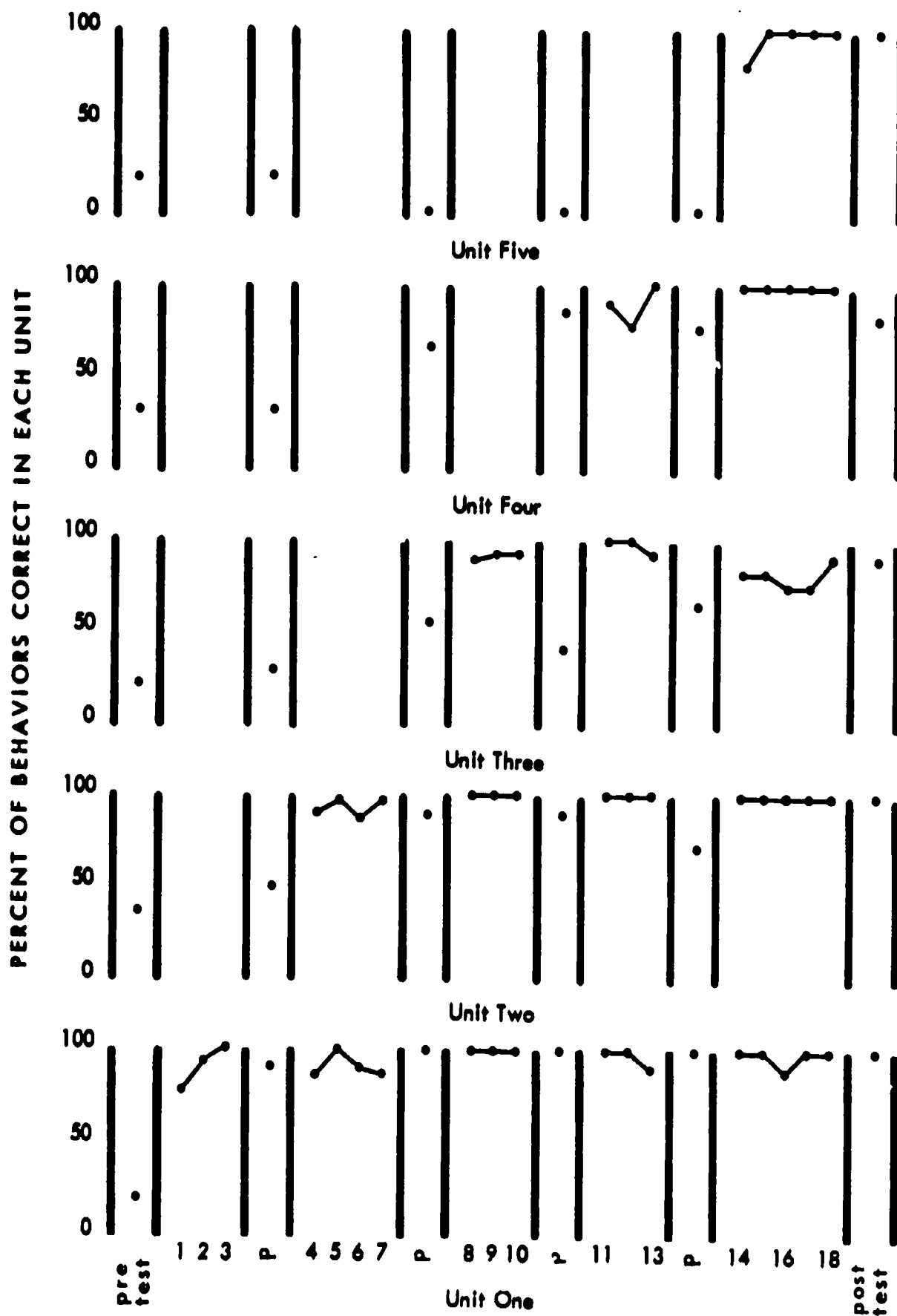
Figure 43

EATING ETIQUETTE

SUBJECT 6

PERCENT OF BEHAVIORS CORRECT IN EACH UNIT

Unit Five

Unit Four

Unit Three

Unit Two

1 2 3   a   4 5 6 7   a   8 9 10   a   11   13   a   14   16   18

pre test   post test

Unit One

SESSIONS

64
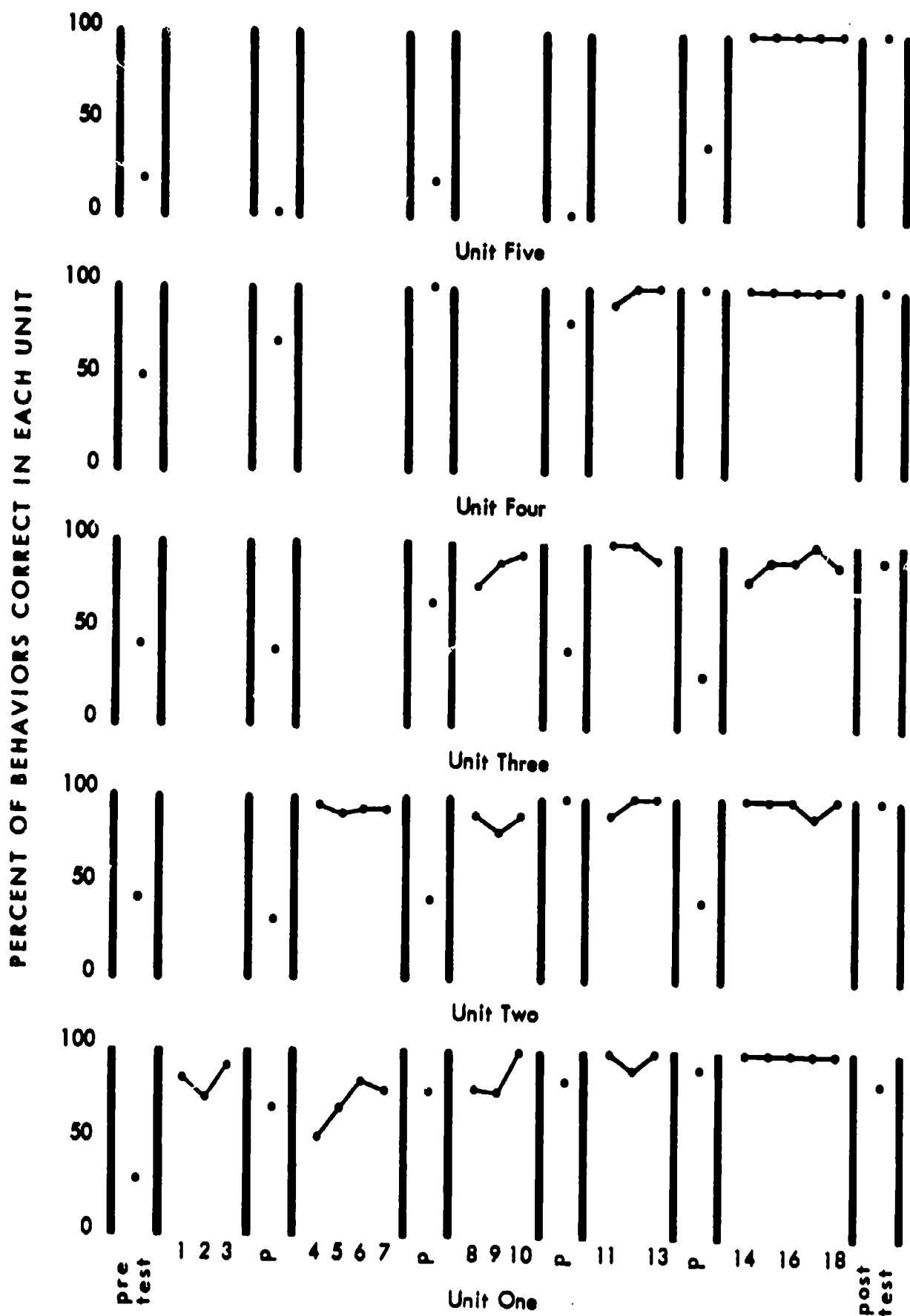
Figure 44

EATING ETIQUETTE

SUBJECT 7

PERCENT OF BEHAVIORS CORRECT IN EACH UNIT

Unit Five

Unit Four

Unit Three

Unit Two

pre test   1 2 3   p.   4 5 6 7   p.   8 9 10   p.   11   13   p.   14   16   18   post test

Unit One

SESSIONS

65
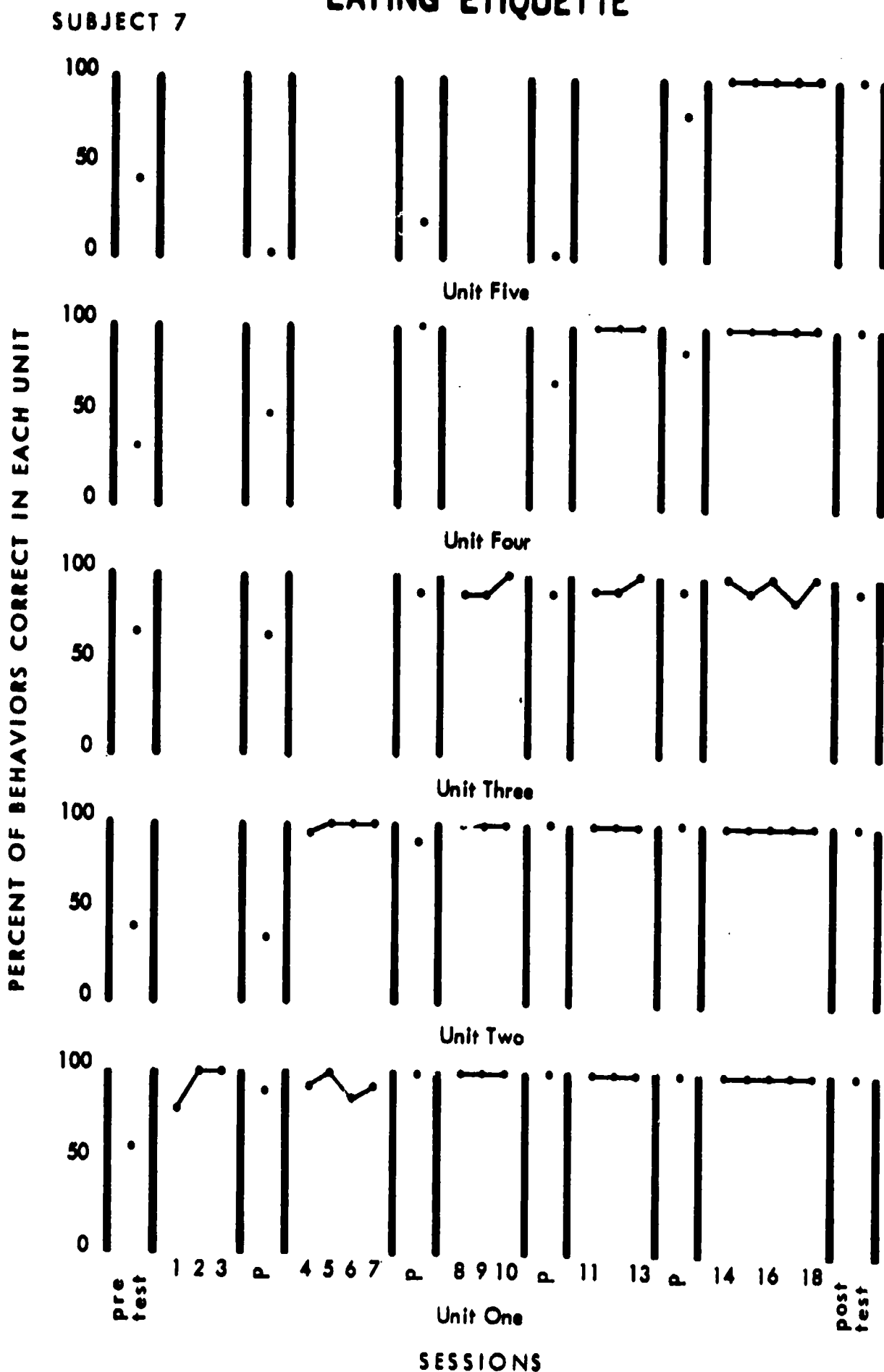
Figure 45

EATING ETIQUETTE

SUBJECT B

PERCENT OF BEHAVIORS CORRECT IN EACH UNIT

Unit Five

Unit Four

Unit Three

Unit Two

Unit One

pre test   post test

1 2 3 ⊃ 4 5 6 7 ⊃ 8 9 10 ⊃ 11 13 ⊃ 14 16 18

SESSIONS

66
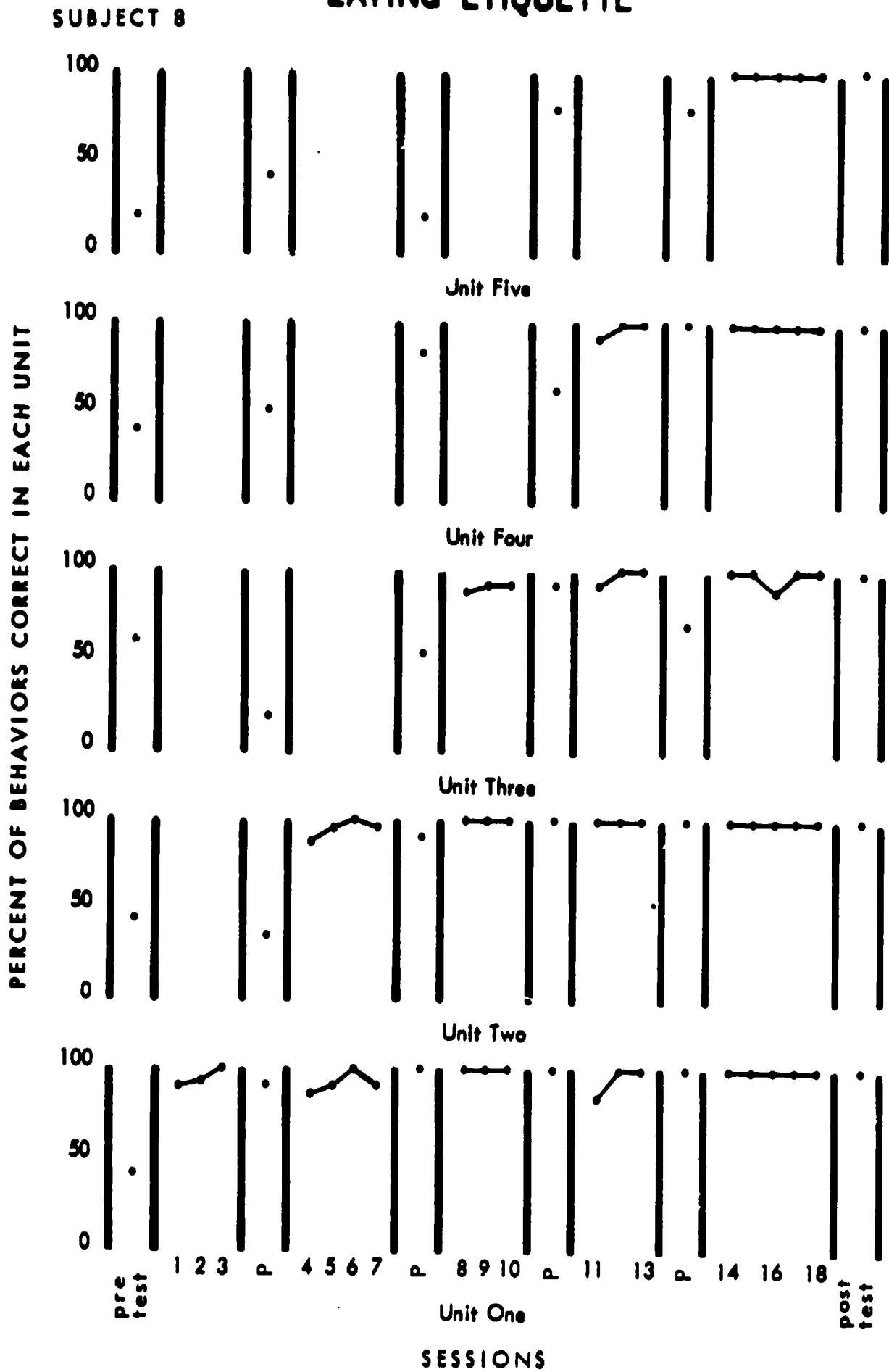
Figure 46

EATING ETIQUETTE
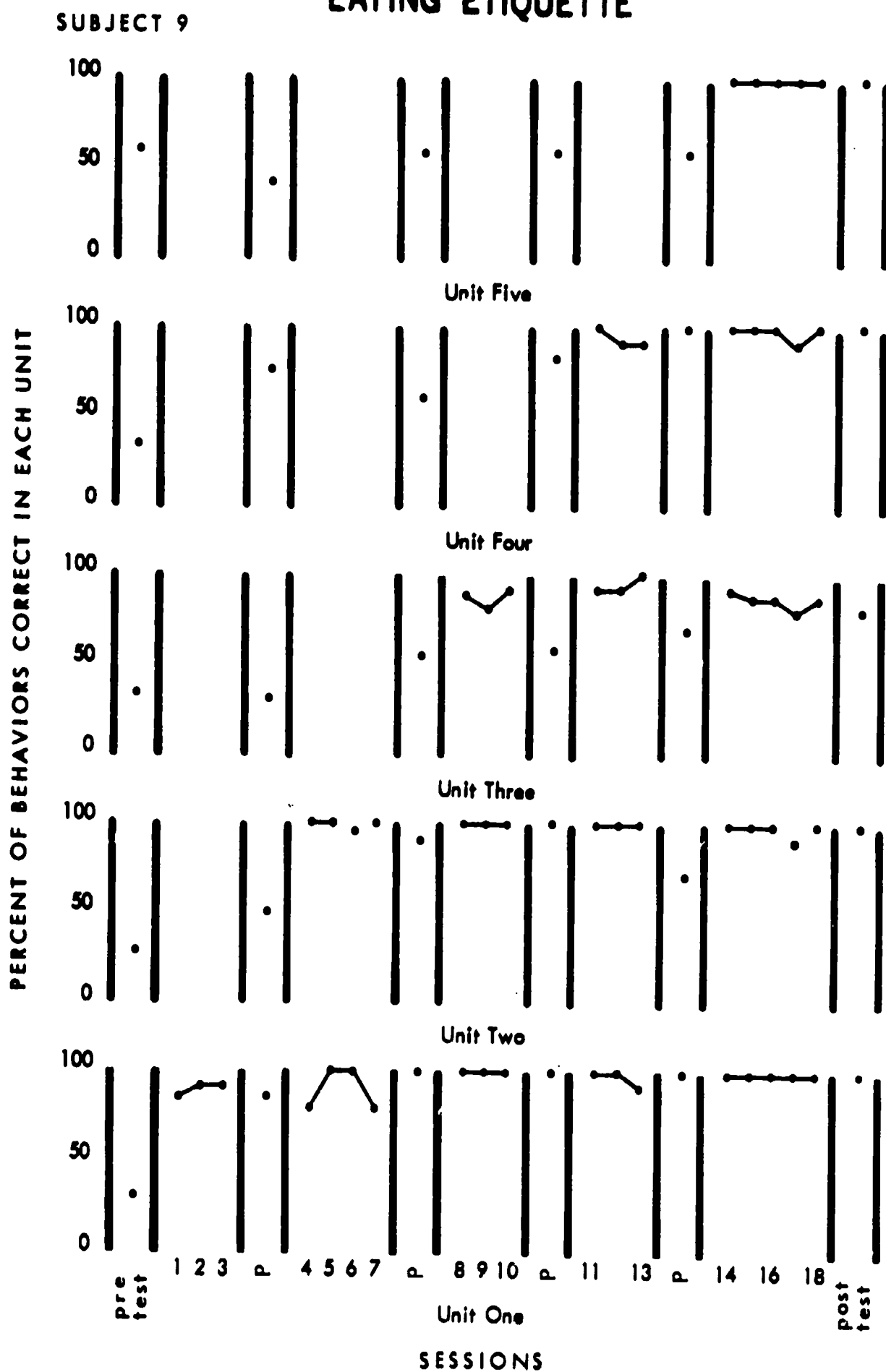
SUBJECT 9

PERCENT OF BEHAVIORS CORRECT IN EACH UNIT

Unit Five

Unit Four

Unit Three

Unit Two

pre test   1 2 3   P   4 5 6 7   P   8 9 10   P   11   13   P   14 16 18   post test

Unit One

SESSIONS

67

Table 4

REST COPY AVAILABLE

Data Summary Sheet	Project M◉RE

Mediated Operational Research for Education

PRETEST AND POSTTEST DATA SUMMARY SHEET

(Raw Score/Percent)

PROGRAM: EATING ETIQUETTE

NUMBER OF BEHAVIORS SCORED: 44 TO 60

Subject	PRETEST		POSTTEST		RELIABILITY	
	Observer A	Observer B	Observer A	Observer B	Pretest	Posttest
GROUP A						
Teresa Freund	36/64%	25/47%	44/83%	38/72%	78%	90%
Melba Moran	27/45%	25/47%	49/91%	46/85%	77%	93%
Joyce Hewitt	28/47%	25/46%	41/77%	42/79%	75%	78%
Collen Dixon	29/48%	20/36%	50/94%	44/83%	70%	90%
GROUP B						
Debbie Weber	13/29%	20/44%	55/96%	48/84%	77%	88%
Shawn Green	17/38%	19/43%	50/94%	45/85%	85%	83%
Corinda Muir	24/51%	25/54%	54/98%	48/87%	78%	87%
Leanda Ehly	21/45%	19/41%	53/100%	53/100%	85%	100%
Karen Breeden	15/33%	23/44%	53/95%	54/100%	80%	92%

COMPLEXION CARE PROGRAM. Five students are currently in training under four trainers. Data from this testing is being plotted as it is collected and potential revisions are being noted.

USE OF TELEPHONE PROGRAM. Nonstaff trainers' feedback indicated that the branching of training based on potential student responses was difficult to follow.

APPROPRIATE MODE OF CLOTHING PROGRAM. Eight students were tested on the rough draft of this program during the first quarter. Four of the students reached criterion performance within the first 10 to 15 training sessions and the other four did not reach criterion over an eight week training attempt. Additional emphasis needs to be given to discriminating "good" from "everyday" clothing, clothing appropriate to each season of the year, and matching of cloth patterns.

HAIR WASHING PROGRAM, NOSE WIPING PROGRAM, HAND WASHING PROGRAM, USE OF DEODORANT PROGRAM, and CARE OF FINGEPNAILS PROGRAM. Preliminary data on four subjects in each of the above programs indicates that the Use of Deodorant and Nose Wiping programs work well. Less satisfactory performance was obtained on the Hair Washing and Hand Washing programs and the programs have been revised to promote more effective learning. Trainers in the Hospital In-Service Training class recently began training four students in the Care of Fingernails Program. It is too early to make statements about the adequacy of this program.

4. DISSEMINATION ACTIVITIES

   See Media, Dissemination.

5. CAPITAL EQUIPMENT ACQUISITIONS

AV-3650	Sony Videocorder	$	1150.00
AVC-3200	Sony Video Camera		400.00
#507	Wide Angle Lens		70.00
VCT-20A	Elevator Tripod		45.00
TD-1	Tripod Dolly		50.00
CMA-2	Recording Adapter		110.00
CCJ-5	Video-Audio Power Extension Cable		45.00
LC-3400	Carrying Case for Video Rover		65.00
		Total $	1935.00

6. DATA COLLECTION

The following forms are the checklists serving as the source for pretest, session-by-session, and posttest data on each of the following programs:

The behaviors listed on the forms serve as the overall description of the behavioral definitions provided in the program.

SHOWERING (BATHING) PROGRAM

DATA SHEET

Student's Name _____

Date _____ Session Number _____

Observer _____

Field Test Site _____

Put a √ beside each behavior performed correctly by the student without help from the trainer during the "WET RUN."

_____ Gets wet all over
_____ Wets washcloth
_____ Rubs soap on washcloth
_____ Puts soap down

FACE
_____ forehead
_____ one cheek
_____ other cheek
_____ nose
_____ chin

EARS
_____ one ear inside
_____ one ear behind
_____ other ear inside
_____ other ear behind

NECK
_____ neck--one side
_____ neck--other side
_____ neck--front
_____ neck--back

SHOULDERS
_____ one shoulder and top of back
_____ other shoulder and top of back

_____ chest

ARMS
_____ one arm--underside
_____ one arm--back and elbow
_____ other arm--underside
_____ other arm--back and elbow

SIDES - BACK
_____ one side
_____ other side
_____ back

HIPS
_____ one hip--side
_____ one hip--back
_____ other hip--side
_____ other hip--back

_____ stomach and genital area

_____ rinses washcloth
_____ rubs soap on washcloth

LEGS
_____ one leg--front
_____ one leg--back
_____ one leg--knee
_____ other leg--front
_____ other leg--back
_____ other leg--knee

FEET
_____ lifts one foot
_____ one foot--top
_____ one foot--bottom
_____ one foot--between toes
_____ one foot--heel
_____ lifts other foot
_____ other foot--top
_____ other foot--bottom
_____ other foot--between toes
_____ other foot--heel

RINSE
_____ lifts arms
_____ stands under flow of water

DRY
_____ face
_____ one ear--inside
_____ one ear--behind
_____ other ear--inside
_____ other ear--behind
_____ neck
_____ one shoulder
_____ other shoulder
_____ chest
_____ one arm
_____ other arm
_____ one side
_____ other side
_____ back
_____ one hip
_____ other hip
_____ stomach and genital area
_____ one leg
_____ other leg
_____ one foot--top and bottom
_____ one foot--between toes
_____ other foot--top and bottom
_____ other foot--between toes

IRONING PROGRAM

DATA SHEET

UNIT ONE -- PREPARATION

	First Trial	Second Trial	Third Trial
Step 1 -- Set up ironing board			
2 -- Fill measuring cup to 3/4 line			
3 -- Fill the iron			
4 -- Dry hands			
5 -- Plug in the iron			
6 -- Turn on the iron			
7 -- Fill the spray bottle			

UNIT SIX -- PUTTING AWAY EQUIPMENT

	First Trial	Second Trial	Third Trial
Step 1 -- Turn iron off			
2 -- Unplug the iron			
3 -- Empty the iron			
4 -- Take down ironing board			
5 -- Clean soleplate of iron			
6 -- Rinse soleplate of iron			
7 -- Dry soleplate of iron			
8 -- Wrap cord around iron			
9 -- Set iron on heel			

IRONING PROGRAM

DATA SHEET (2)

UNIT TWO -- SPRAYING AND IRONING A FLAT PIECE

	First Trial	Second Trial	Third Trial
Step 1 -- Smooth the handkerchief			
2 -- Spray the handkerchief			
3 -- Iron the bottom edge			
4 -- Iron the left edge			
5 -- Iron the right edge			
6 -- Iron the top edge			
7 -- Iron the center			
8 -- Fold the handkerchief			
9 -- Iron the folded handkerchief			
10 -- Fold the handkerchief again			
11 -- Iron the second fold			
12 -- Fold the handkerchief again			
13 -- Iron the folded handkerchief			
14 -- Put the handkerchief away			

IRONING PROGRAM

DATA SHEET (3)

UNIT THREE -- SPRAYING AND IRONING A SKIRT

	First Trial	Second Trial	Third Trial
Step 1 -- Smooth the skirt			
2 -- Spray the skirt			
3 -- Turn the skirt over			
4 -- Spray the other side			
5 -- Close the zipper			
6 -- Put the skirt on the board			
7 -- Smooth the skirt			
8 -- Iron the waistband			
9 -- Iron the zipper			
10 -- Iron the seam			
11 -- Iron the hem			
12 -- Iron from hem to waistband			
13 -- Put the skirt on a hanger			
14 -- Hang the skirt up			

IRONING PROGRAM

DATA SHEET (4)

UNIT FOUR -- SPRAYING AND IRONING A BLOUSE/SHIRT

	First Trial	Second Trial	Third Trial
Step 1 -- Smooth the shirt			
2 -- Spray the shirt			
3 -- Turn the shirt over			
4 -- Spray the other side			
5 -- Iron the collar			
6 -- Iron the other side of the collar			
7 -- Iron the inside of the cuff			
8 -- Iron the outside of the cuff			
9 -- Smooth sleeve			
10 -- Iron the sleeve			
11 -- Turn the sleeve over			
12 -- Smooth the sleeve			
13 -- Iron the sleeve			
14 -- Iron the inside of the other cuff			
15 -- Iron the outside of the other cuff			
16 -- Smooth the other sleeve			
17 -- Iron the sleeve			
18 -- Turn the sleeve over			
19 -- Smooth the sleeve			
20 -- Iron the sleeve			
21 -- Smooth the yoke			
22 -- Iron the yoke			
23 -- Smooth button side of front			
24 -- Iron between buttons			
25 -- Iron button side of front			
26 -- Iron pocket (if applicable)			
27 -- Iron the side seam			
28 -- Iron the back			
29 -- Arrange the pleat (if applicable)			
30 -- Iron the pleat (if applicable)			
31 -- Smooth buttonhole side of shirt			
32 -- Iron button holes			
33 -- Iron buttonhole side of shirt			
34 -- Iron other pocket (if applicable)			
35 -- Iron other side seam			
36 -- Put the shirt on a hanger			
37 -- Hang the shirt up			

IRONING PROGRAM

DATA SHEET (5)

UNIT FIVE -- SPRAYING AND IRONING SLACKS/SHORTS

	First Trial	Second Trial	Third Trial
Step 1 -- Smooth the slacks			
2 -- Spray the slacks			
3 -- Turn the slacks over			
4 -- Spray other side of slacks			
5 -- Push out corners and seams of pockets			
6 -- Smooth and iron each pocket			
7 -- Pull the slacks on the board			
8 -- Iron the waistband and belt loops			
9 -- Iron along the zipper			
10 -- Iron top of slacks			
11 -- Iron the zipper fly (if applicable)			
12 -- Smooth slacks lengthwise on board			
13 -- Fold top leg back			
14 -- Smooth the leg			
15 -- Iron the leg			
16 -- Turn the leg over			
17 -- Iron the other side of the leg			
18 -- Smooth other leg on board			
19 -- Iron the second leg			
20 -- Turn the leg over			
21 -- Iron other of second leg			
22 -- Put slacks on hanger			
23 -- Hang slacks up			

This is training session number ____

This probe session was conducted prior to Unit Number ____

FACE SHAVING PROGRAM

BEHAVIOR CHECKLIST

Instructions

1. Put a √ beside each behavior performed by the student without assistance.

2. The teacher should fill out one complete behavior checklist during each training session.

3. The teacher and another observer should conduct a probe session before beginning a unit. Each observer should fill out a separate behavior checklist on the student. The teacher should say to the student, *Today I want you to try to shave all by yourself.* Do not help the student. Score the entire behavior checklist in terms of what the student was able to do correctly. After the behavior checklist has been scored, finish shaving the student.

4. Indicate on each behavior checklist:

   a. the number of the training session, or

   b. the number of the unit which follows the probe

FACE SHAVING PROGRAM (2)

Preparing Facility

1. Getting started

   a. places razor next to sink --- ☐

   b. places razor blades next to sink --------------------------------- ☐

   c. places shave cream next to sink --------------------------------- ☐

   d. places towel next to sink --- ☐

2. Puts a razor blade in razor or changes blade --------------------- ☐

3. Adjusts blade in razor to minimum blade exposure --------------- ☐

4. Runs warm water

   a. turns on cold water --- ☐

   b. turns on hot water --- ☐

   c. adjusts hot and cold water for warm water --------------------- ☐

Preparing Face

5. Bends over sink so face is in middle and close to faucets ----------- ☐

6. Puts water all over face and neck ----------------------------------- ☐

7. Applies shave cream to hand

   a. shakes can --- ☐

   b. presses top releasing shave cream ------------------------------- ☐

   c. puts shave cream in hand --- ☐

8. Puts shave cream on whiskers

   a. gets shave cream from one hand on fingertips of other hand ------ ☐

   b. applies shave cream all over

R. Cheek	L. Cheek	Above Lip	Chin	Neck
☐	☐	☐	☐	☐

FACE SHAVING PROGRAM (3)

Shaving Sideburns

9. Removes shave cream from   Right Sideburn ☐   Left Sideburn ☐

10. Holds razor correctly to   Right Sideburn ☐   Left Sideburn ☐

11. Adequately shaves   Right Sideburn ☐   Left Sideburn ☐

Shaving Face

12. Pulls razor adequately on face -- ☐

13. Adequately shaves

R. Cheek	L. Cheek	Above Lip	Chin
☐	☐	☐	☐

Shaving Neck

14. Holds razor correctly to neck --- ☐

15. Pulls razor adequately on neck --- ☐

16. Shaves all of neck -- ☐

Checking

17. Checking

    a. looks in mirror -- ☐

    b. feels for smoothness -- ☐

    c. correctly tells teacher of smoothness -------------------------- ☐

Cleaning Up

18. Washes face --- ☐

19. Dries face -- ☐

20. Washes razor -- ☐

21. Rinses sink --- ☐

OBSERVER CHECKLIST

LEG AND UNDERARM SHAVING PROGRAM

	LOWER RIGHT LEG	LOWER LEFT LEG	UPPER RIGHT LEG	UPPER LEFT LEG	LEFT UNDERARM	RIGHT UNDERARM
1. Puts razor blade in razor or changes blade						
2. Draw a pan (or tub) of warm water by adjusting hot and cold faucets						
3. Wets washcloth prior to applying it to:						
4. Wrings excess water from washcloth (not required if in tub)						
5. Applies water (with wet washcloth) to:						
6. Applies soap to:						
7. Rubs hands on soap working it into a lather						
8. Shaves by:						
a. holding razor with correct grasp						
b. holding razor at correct angle to skin						
c. maintaining proper pressure on razor						
d. taking short careful strokes (3 inches or less)						
e. rinsing razor after each 5 to 10 strokes						
9. Tests for smoothness after shaving skin						
10. Rinses skin						
11. Dries all skin areas after shaving of all leg and underarm areas is complete						

Put a √ beside each behavior performed by the student without assistance.

Student _____

Teacher _____

Date _____

Lesson number _____

T O O T H B R U S H I N G   P R O G R A M   --   D A T A   S H E E T

STEPS	Teacher provided NO CUES. Student's performance was:		Teacher provided VERBAL CUES. Student's performance was:		Teacher provided VERBAL AND VISUAL CUES. Student's performance was:		Teacher provided VERBAL, VISUAL AND PHYSICAL CUES. Student's performance was:	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
1. Pick up toothbrush								
2. Wet toothbrush								
3. Remove toothpaste cap								
4. Apply toothpaste								
5. Replace toothpaste cap								
6. Brush outside surfaces								
7. Brush biting surfaces								
8. Brush inside surfaces								
9. Fill cup with water								
10. Rinse mouth								
11. Wipe mouth								
12. Rinse brush								
13. Rinse sink								
14. Put equipment away								
15. Discard disposables								

Session number _____

Date _____

EATING SKILLS FOR DAILY LIVING PROGRAM

BEHAVIOR CHECKLIST

UNIT ONE

Students	1	2	3	4	5
1a					
b					
2a					
b					
c					
d					
e					
f					
g					
h					
3					
4a					
b					
5					
6					

1. (a) Tablecloth and (b) condiments are put on table appropriately by all students.

2. Student places (a) plates, (b) napkins (c) forks, (d) knives, (e) spoons, (f) salad bowls, (g) food, and (h) filled glasses appropriately on the table.

3. Student pulls chair straight back from underneath the table.

4. Student (a) sits in chair appropriately and (b) pulls up to the table.

5. Students start w everyone is at the table.

6. Students put unfolded napkin on their laps.

EATING SKILLS FOR DAILY LIVING PROGRAM

BEHAVIOR CHECKLIST

UNIT TWO

Students	1	2	3	4	5
1a					
b					
c					
d					
e					
2a					
b					
c					
d					
e					
a					
b					
c					
d					
e					
a					
b					
c					
d					
e					
a					
b					
c					
d					
e					
a					
b					
c					
d					
e					

1. Student picks up only that food which is within arm's reach while sitting in his chair.

2. When passed items, (food or condiments) each student (a) accepts tray, (b) takes proper serving (or none at all) (c) with proper utensil, (d) places it on their plate (not stacked), and (e) passes adequately (to the right).

EATING SKILLS FOR DAILY LIVING PROGRAM

UNIT TWO (2)

Students	1	2	3	4	5

3. When passing items (food or condiments) each student (a) picks up food nearest to him, (b) takes proper serving (or none at all) (c) with proper utensil, (d) places food on his plate, and (e) passes correctly.

4. With condiments in reach of student, student picks up the condiments himself.

5. With condiments out of reach of the student, student asks person nearest the condiments to pass them.

EATING SKILLS FOR DAILY LIVING PROGRAM

BEHAVIOR CHECKLIST

UNIT THREE

Students	1	2	3	4	5
1a					
b					
c					
d					
e					
f					
g					
h					
i					
j					
2a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					

1. Student holds spoon properly.

2. Student (a) scoops properly with (b) appropriate foods; (c) student puts food in mouth properly.

EATING SKILLS FOR DAILY LIVING PROGRAM

UNIT THREE (2)

Students	1	2	3	4	5
3a					
b					
c					
d					
e					
f					
g					
h					
i					
j					
4a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					
a					
b					
c					

3. Student holds fork properly.

4. Student (a) uses fork properly (b) with appropriate foods; (c) student puts food in mouth properly.

EATING SKILLS FOR DAILY LIVING PROGRAM

UNIT THREE (3)

BEST COPY AVAILABLE

Students	1	2	3	4	5
5a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					

5. (For cutting) student (a) holds knife properly and (b) holds fork properly.

Students	1	2	3	4	5
6a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					

6. (For cutting) student (a) pokes meat and (b) cuts off a small piece.

EATING SKILLS FOR DAILY LIVING PROGRAM

UNIT THREE (4)

7. Student (a) puts knife on plate, (b) switches hands with fork, (c) pokes meat, and (d) puts it in his mouth.

8. Student rotates in eating peas, meat, carrots and salad.

EATING SKILLS FOR DAILY LIVING PROGRAM

BEHAVIOR CHECKLIST

UNIT FOUR

BEST COPY AVAILABLE

Students	1	2	3	4	5
1a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					

1. (With food in reach of student)
   (a) student picks up food himself
   and (b) serves himself.

	1	2	3	4	5
2a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					
a					
b					

2. (With food out of reach of student) (a)
   student says "(Name of person closest to
   food), please pass the _____." and
   (b) serves himself.

EATING SKILLS FOR DAILY LIVING PROGRAM

BEHAVIOR CHECKLIST

UNIT FOUR (2)

Students	1	2	3	4	5
3a					
b					
4a					
b					
c					
d					

3. Student (a) rotates eating until (b) food is off plate.

4. Student (a) puts utensils properly in plate, (b) napkin in plate, (c) gets up and (d) puts his chair under the table.

EATING SKILLS FOR DAILY LIVING PROGRAM

BEHAVIOR CHECKLIST

UNIT FIVE

BEST COPY AVAILABLE

Students	1	2	3	4	5
1a					
b					
c					
d					
a					
b					
c					
d					
a					
b					
c					
d					
2a					
b					
c					
d					
e					

1. Student (a) picks up the bread, (b) breaks the bread in half, (c) holds the bread in left hand, (or right hand if left-handed), (d) and picks up his knife in his right hand (or left hand if left-handed).

2. Student butters bread properly.

DATA SHEET

COMPLEXION CARE PROGRAM - NORMAL SKIN

Student _____
Teacher _____
Date _____
Lesson number _____

STEPS	Teacher provided NO CUES. Student's performance was:		Teacher provided VERBAL CUES. Student's performance was:		Teacher provided VERBAL AND VISUAL CUES. Student's performance was:		Teacher provided VERBAL, VISUAL AND PHYSICAL CUES. Student's performance was:	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
1. Turn on cold water								
2. Turn on hot water								
3. Adjust to warm								
4. Wet face								
5. Pick up soap								
6. Work soap into lather								
7. Apply soap to face								
8. Massage soap on face								
9. Rinse hands and face								
10. Turn off hot water								
11. Rinse face/cold water								
12. Dry face								
13. Apply lotion to face								
14. Massage lotion on face								

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Lent (6)

DATA SHEET

COMPLEXION CARE PROGRAM - OILY SKIN

Student _____
Teacher _____
Date _____
Lesson number _____

STEPS	Teacher provided NO CUES. Student's performance was:		Teacher provided VERBAL CUES. Student's performance was:		Teacher provided VERBAL AND VISUAL CUES. Student's performance was:		Teacher provided VERBAL, VISUAL AND PHYSICAL CUES. Student's performance was:	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
1. Turn on cold water								
2. Turn on hot water								
3. Adjust to warm								
4. Wet face								
5. Pick up soap/grains								
6. Lather soap/pour grains								
7. Apply soap/grains								
8. Massage soap/grains								
9. Rinse hands and face								
10. Turn off hot water								
11. Rinse face/cold water								
12. Dry face								
13. Apply astringent/cotton								
14. Apply astringent/face								
15. Apply lotion to face								
16. Massage lotion on face								

DATA SHEET

COMPLEXION CARE PROGRAM - DRY SKIN

Student _____

Teacher _____

Date _____

Lesson number _____

STEPS	Teacher provided NO CUES. Student's performance was:		Teacher provided VERBAL CUES. Student's performance was:		Teacher provided VERBAL AND VISUAL CUES. Student's performance was:		Teacher provided VERBAL, VISUAL AND PHYSICAL CUES. Student's performance was:	
	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect	Correct	Incorrect
1. Apply lotion to face								
2. Wipe off lotion with tissue								
3. Reapply thin film of lotion								
4. Massage lotion on face								

APPROPRIATE MODE OF CLOTHING PROGRAM

UNIT ONE CHECKLIST

Score   + = Correct Selection
            - = Incorrect Selection
            0 = No Selection

Students

BOY'S GOOD CLOTHING

	1	2	3	4	5
Shirt					
Slacks					
Tie					
Sportcoat					
Socks					
Good Shoes					

GIRL'S GOOD CLOTHING

	1	2	3	4	5
Dress or Skirt and Blouse					
Hose					
Good Shoes					

BOY'S EVERYDAY CLOTHING

	1	2	3	4	5
Jeans					
Shirt					
Socks					
Everyday Shoes					

GIRL'S EVERYDAY CLOTHING

	1	2	3	4	5
Slacks					
Blouse					
Socks					
Everyday Shoes					

APPROPRIATE MODE OF CLOTHING PROGRAM

UNIT TWO CHECKLIST

+ = Correct Selection
- = Incorrect Selection
0 = No Selection

Students

Situations	1 Boy Girl	2 Boy Girl	3 Boy Girl	4 Boy Girl	5 Boy Girl
Church					
Clothing					
Footwear					
Home					
Clothing					
Footwear					
Dance					
Clothing					
Footwear					
Outdoor Sports					
Clothing					
Footwear					
Party					
Clothing					
Footwear					
School					
Clothing					
Footwear					
Restaurant					
Clothing					
Footwear					
Work					
Clothing					
Footwear					

APPROPRIATE MODE OF CLOTHING PROGRAM

UNIT TWO CHECKLIST (2)

	1	2	3	4	5
	Boy Girl	Boy Girl	Boy Girl	Boy Girl	Boy Girl
Movies					
Clothing					
Footwear					
Shopping					
Clothing					
Footwear					
Roller Skating					
Clothing					
Footwear					
Picnic					
Clothing					
Footwear					
Basketball					
Clothing					
Footwear					
Swimming					
Clothing					

APPROPRIATE MODE OF CLOTHING PROGRAM

UNIT THREE CHECKLIST

+ = Correct Selection
- = Incorrect Selection
0 = No Selection

Students

	1	2	3	4	5
Cold weather					
Boy's Clothing					
Girl's Clothing					
Cool weather					
Boy's Clothing					
Girl's Clothing					
Rainy weather					
Boy's Clothing					
Girl's Clothing					
Hot weather					
Boy's Clothing					
Girl's Clothing					

APPROPRIATE MODE OF CLOTHING PROGRAM

UNIT FOUR CHECKLIST

Place a √ beside the outfit selected.

Students

Pictures	1	2	3	4	5
Girl - Flowered blouse Plaid skirt					
Solid color blouse Plaid skirt					
Boy - Plaid shirt Plaid pants					
Plaid shirt Solid color pants					
Girl - Striped blouse Striped shorts					
Striped blouse Solid color shorts					
Boy - Striped shirt Plaid pants					
Solid color shirt Plaid pants					
Girl - Flowered blouse Plaid slacks					
Flowered blouse Solid color slacks					
Boy - Plaid shirt Striped shorts					
Plaid shirt Solid color shirt					

HAIR WASHING PROGRAM - DATA SHEET

BEHAVIORS	Pretest +0	Class 1 +TSAO	Class 2 +TSAO	Class 3 +TSAO	Class 4 +TSAO	Class 5 +TSAO	Class 6 +TSAO	Class 7 +TSAO	Class 8 +TSAO	Class 9 +TSA	Class 10 +TSAO	Class 11 +TSAO	Class 12 +TSAO	Class 13 +TSAO	Class 14 +TSAO	Class 15 +TSAO			
1. Gather materials																			
1a. Comb or brush tangles from hair (optional behavior)																			
2. Turn on cold water and feel it																			
3. Turn on hot water and briefly feel it																			
4. Feel warm water																			
5. Run warm water																			
6. Wet hair																			
7. Apply shampoo to hands, rub together																			
8. Rub hands all over hair																			
9. Work into lather																			
10. Rinse hair																			
11. Apply shampoo to hands, rub together (repeat Behavior 7)																			
12. Rub hands all over hair (repeat Behavior 8)																			
13. Work into lather (repeat Behavior 9)																			
14. Rinse hair (repeat Behavior 10)																			
15. Towel hair dry																			
16. Comb or arrange hair																			
17. Clean up sink and floor																			
18. Put materials away																			

*When the student is ready to take the posttest, score it in the column for the next class, i.e., if 12 classes have been completed when the student is ready to take the posttest, score the posttest under the column for Class 13 and mark that column posttest.

NOSE WIPING PROGRAM

DATA SHEET

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BEHAVIORS	Pretest	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Class 16	Class 17	Class 18	Class 19	Class 20
1. Get Tissue																					
2. Pull from Box																					
3. Position to Nose																					
4. A. Blow																					
B. Pinch																					
C. Wipe																					
D. Fold																					
5. Repeat 3 & 4 if Needed																					
6. Check																					
7. Dispose of Tissue																					

SCORING - (√) Student can do on his own without prompting

(0) Student can not do or can not do without prompting

(NA) Behavior not applicable ir scoring

BEHAVIORS

1. Gather materials
   a. Pull up sleeves
2. Turn on cold water and feel it
3. Turn on hot water and feel it
4. Feel warm water
5. Run warm water
6. Pick up soap/Wet hands
7. Soap hands
8. Replace soap
9. Lather palms and backs of hands
10. Lather between fingers
11. Lather nail area
12. Rinse soap from hands
13. Rinse sink
14. Turn off water
15. Dry hands
16. Dry counter top
17. Hang up towel

Pretest	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14	Class 15	Class 16	Class 17	Class 18	Class 19	Class 20

SCORING - Score a (√) by all the behaviors performed correctly.

Score a (0) by all the behaviors performed incorrectly.

Score a (NA) by all the behaviors "not applicable" to the situation.

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Lent (6)

DATA SHEET

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BEHAVIORS	Pretest	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Class 14
1. Pick up deodorant dispenser															
2. Shake dispenser															
3. Remove lid															
4. Position hand on dispenser and raise arm															
5. Point spray opening towards underarm															
6. Spray underarm															
7. Change hands															
8. Position hand on dispenser and raise arm															
9. Point spray opening towards underarm															
10. Spray underarm															
11. Replace lid															
12. Put equipment away															

SCORING - (√) Student performed behavior correctly

(0) Student did not perform behavior correctly

(NA) Not applicable

Lent (6)

NAIL CARE PROGRAM

FINGERNAIL CLEANING DATA SHEET

BEHAVIORS	Pretest	Class 1	Class 2	Class 3	Class 4
1. Gather materials					
2. Turn on cold water only and recognize					
3. Turn on hot water only and recognize					
4. Feel warm water					
5. Run warm water					
6. Wet hands					
7. Position and wet soap and brush					
8. Apply soap to brush					
9. Scrub tops and ends of nails on one hand					
10. Scrub tops and ends of nails on the other hand					
11. Rinse brush and hands					
12. Dry hands					
13. Clean up the area					
14. Put the materials away					

NAIL CARE PROGRAM

FINGERNAIL CLIPPING AND SHAPING DATA SHEET

BEHAVIORS	Pretest	Class 1	Class 2	Class 3	Class 4
1. Gather materials					
2. Pick up and open clippers					
3. Position clippers					
4. Cut one edge of fingernail					
5. Cut other edge of fingernail					
6. Cut center of fingernail					
7. Pick up, position, and file with emory board					
8. Clean up					
9. Put materials away					

NAIL CARE PROGRAM

TOENAIL CLIPPING DATA SHEET

BEHAVIORS	Pretest	Class 1	Class 2	Class 3	Class 4
1. Gather materials					
2. Pick up and open clippers					
3. Position clippers on one corner of nail					
4. Clip corner of nail					
5. Position clippers on other corner of nail					
6. Clip other corner of nail					
7. Position clippers on center of nail					
8. Clip center of nail					
9. Clean up					
10. Put materials away					

7. OTHER ACTIVITIES

Project related activities have resulted in extensive efforts to:
1) Exhibit Project MORE materials in an attempt to familiarize the consumer with Project products; and 2) provide consulting services to integrate Project MORE materials into existing rehabilitation systems in various facilities throughout the country.

- February 25-27 - The Project Director and Instructional Media Analyst traveled to Washington to confer with John Davis and Max Mueller of the Division of Research, H.E.W.; Jane DeWeerd, project officer, B.E.H.; and Mike Neben, project officer with the Commission on Educational Technology.

- March 7-9 - The Assistant Director served as a consultant to the Boulder River School and Hospital, Boulder, Montana

- March 13-18 - The post-doctoral trainee served as a participant at the Conference on Behavioral Research and Theory in Mental Retardation, Gatlinburg, Tennessee

- March 14-17 - The Project Director served as a consultant to the University of Hawaii, Honolulu, Hawaii

- March 23-24 - The Project Director, Workshop Director, and Instructional Media Analyst served as participants in the Minnesota CEC Convention, Duluth, Minnesota

- March 26-27 - The Assistant Director served as a consultant to the Columbus State Institute, Columbus, Ohio

- March 26-28 - The Project Director served as a participant in the Behavior Modification Workshop, Atlanta, Georgia

- March 29-31 - The Project Director and Instructional Media Analyst served as participants in the Community Resource Conference for the Retarded, Santa Barbara, California

▪April 2-6 - The Assistant Director served as a consultant to the Orient
State Institute, Orient, Ohio

▪April 23-28 - The Project Director, Research Associate, Instructional
Media Analyst, and Program Dissemination Editor served as exhibitors
at the 51st Annual International Council for Exceptional Children,
Dallas, Texas

▪April 26 - The Project Director served as a consultant to the Arlington
Public Schools, Arlington, Texas

▪May 7-8 - The Project Director, Workshop Director, and a research
assistant presented a workshop for staff members of Emerson School,
Minneapolis, Minnesota

▪May 27 - June 1 - The Project Director, Associate Director, Instructional
Media Analyst, and Systems Analyst will present a symposium at the
National American Association on Mental Deficiency Convention, Atlanta,
Georgia

8. STAFF UTILIZATION

During the first quarter of this grant year, the curriculum materials staff has continued to remain divided into project teams, with one or more research assistants assigned to one or more programs under the supervision of either the Project Director, Assistant Director, or Research Associate.

Because of increased involvement of PSHTC and its University Affiliated Facility in field testing and validation of Project MORE programs, Project staff members have continued to devote more time to the monitoring of daily training sessions, a procedure heretofore prohibited by cost and distance. The increase in staff utilization in this endeavor is well worth the return in terms of valid, reliable training-session data.

Project MORE staff members have continued to serve as consultants for students and other professionals. The Assistant Director, the Research Associate, and Media personnel have served as faculty members and lecturers in Hospital In-Service Training Programs (HIST) and in the University Affiliated Facility (UAF) course titled, "Survey of Mental Retardation."

Ingo Keilitz, Ph.D., will assume the duties of associate director of the Project June 1, 1973, when Don Horner, the present assistant director, terminates his employment with the Project. During the first three months of the grant year, Dr. Keilitz devoted two-fifths of his time to Project MORE and the balance to work as a behavior modification specialist with the Southeast Kansas Four County Mental Health Center. In conjunction with his other responsibilities, Dr. Keilitz instructed teachers, parents, counselors, and administrators in the use of behavior modification techniques which include intervention strategies developed by Project MORE. He assumed a full-time position on the Project MORE staff on May 1, 1973. Dr. Keilitz' vita may be found in Appendix C.

Sandra Grafton continued in the position she assumed January 1, 1973, as workshop director for Project MORE and KU/SEIMC. The position is funded one-half from the University of Kansas SEIMC since it is appropriate to their own aims and activities, and one-half from Project MORE.

9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

PROJECTION. By the end of the next reporting period (August 31, 1973), an additional six to seven programs will have been validated. At least four programs will have been mediated for dissemination. These programs will bring the total ready for dissemination to a maximum of 12 and a minimum of nine.

PROGRAM TESTING. First priority will be given to program testing of the Ironing, Complexion Care, Hair Washing, Nose Wiping, Hand Washing, Use of Deodorant, and Care of Fingernails programs.

MEDIATION. Because of the large number of programs that will require final mediation during the next quarter, the Media staff will give first priority to preparing print-ready copy of the programs that have undergone final testing.

DESIGN AND DEVELOPMENT. Design and development activities will continue on several programs, but will be scheduled around program testing.

EVALUATION. A position paper will be prepared concerning the philosophy and techniques of program validation. Additional input from consultants will be used in the preparation of the paper. It is anticipated that the paper will have implications for other similar projects.

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

Research efforts during this report period have emphasized the investigation of more efficient programing of the Stimulus Shift Generalization program with a public school population. Reporting efforts have centered on a recently completed Stimulus Shift study which investigated effectiveness of the procedure before efficiency measures were taken. The following discussion will briefly present research and reporting activities and accomplishments in these areas of involvement.

STIMULUS SHIFT GENERALIZATION PROGRAM

The major research thrust of the articulation component of Project MORE during this report period has occurred with the Stimulus Shift Generalization program and its application with a public school population. Of primary concern has been the establishment of an _efficient_ program that does not sacrifice effectiveness. Earlier research progress reports have discussed the effectiveness of the Stimulus Shift procedure; however, the length of training time per child per phoneme was found to be too extensive (see McLean/Raymore, Significant Findings and Events). Two research strategies based on Stimulus Shift principles were developed in this direction. The first strategy, the _horizontal_ approach, focuses on shifting correct target phoneme production from one configurational level to another (e.g., from words to sentences of varying complexity) with the word position remaining constant. The _vertical_ approach reverses the emhasis by focusing on positional acquisition with the configuration remaining constant. The material in Appendix A visually demonstrates the differences in the two research strategies.

The "efficiency study" was initiated March 5, 1973, in two public elementary schools in Parsons, Kansas. Included in the study are 39 research subjects who are currently enrolled in grades K - 6. Thirty-eight subjects passed hearing screening checks while one subject was found to have a minimal bilateral hearing loss; because this subject was being trained on the highly visible /l/ phoneme and because the loss was minimal, it was decided to maintain the subject's participant status. The training program includes procedures for seven phonemes: (ch, s, f, l, sh, r, and th). Therapists or data collectors in the study are two paraprofessional Project staff members. Each is supervised regularly by a professionally certified speech pathologist. At this writing all 39 subjects have completed at least half of the training program. Fifteen subjects have successfully completed training. While the data are not complete at this writing, the following general trends seem to be occurring in both the horizontal and vertical approaches:

a) program effectiveness is maintained while efficiency is increased, and

b) possible elimination of over-generalized phoneme responses.

Included in this study is one speech therapy group. The group is composed of three siblings, all being trained on the /f/ phoneme. While the data are incomplete at this writing, it appears that the Stimulus Shift procedure is effective in both individualized and group settings. Further investigation will be required to support this finding.

In an effort to analyze the effectiveness of the stimulus materials, additional data are being gathered to ascertain the areas of highest error occurrence. This data will be used during the program refinement period to select the more appropriate stimulus materials.

In addition to the above study, activities involving the Stimulus Shift procedure have included analysis of data collected in a previously completed study designed to investigate program effectiveness with public school children. The results of the study were compiled and are included in McLean/Raymore, Significant Findings and Events.

RESPONSE DEVELOPMENT

Due to a revised research format, further investigation of effective Response Development procedures has been delayed to the 1974 research year (see Continuation Proposal, December, 1972, McLean/Raymore, Future Activities). During this last report period, however, all data involving the most recent Response Development study with public school and institutionalized, retarded subjects have been collected and analyzed. The data appear to indicate that the present procedures are effective with both subject populations in the development of imitative phonemic responses in words. Seven public school subjects are now receiving continued training on the Stimulus Shift Generalization program to assure complete phoneme generalization into conversation. The results of the study will be discussed in an upcoming report.

2. PROBLEMS

No major problems occurred during this reporting period.

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3. SIGNIFICANT FINDINGS AND EVENTS

STIMULUS SHIFT GENERALIZATION PROGRAM
Public School Population

Previous research (See Quarterly Report, December 1, 1972) indicated the need for program modifications in order to increase the effectiveness of generalization training with public school children. In order to evaluate the effectiveness of these modified programs, a study was conducted in one public elementary school in Parsons, Kansas. A trained paraprofessional served as the data collector; participants in the study included 16 public school children in grades 1 through 3. All children were screened and selected for participation by a speech pathologist; hearing screening indicated that all children had hearing thresholds within normal limits.

Of the 16 participants, 11 children completed the training program by demonstrating phoneme generalization to conversation at the 85 percent or better level. One child was terminated from the program with 84.3 percent phoneme generalization. The four remaining participants did not complete the program due to the following:

    a) three subjects (labeled as learning disabled) are moving slowly through the program, and

    b) one subject began showing signs of emotional stress in all educational areas; she has been placed on a clinical vacation until public school personnel indicate improved emotional status.

FIGURE 1

PERCENTAGE OF CORRECT PHONEMIC RESPONSES
IN CONVERSATION BEFORE AND AFTER TRAINING
ON THE STIMULUS SHIFT GENERALIZATION PROGRAM

NAME	PHONEME & GRADE		PRETEST (CONV) %				POSTTEST (CONV) %			
			I	M	F	AVG	I	M	F	AVG
*RS	1	K	50	25	-	42	95	100	-	96
SW	th	1	0	33	20	14	100	100	100	100
LS	th	1	0	0	0	0	100	100	100	100
BW	th	1	50	0	0	20	93	100	100	97
CS	1	1	0	0	-	0	100	100	-	100
KM	th	1	100	0	0	23	100	100	100	100
CF	ʓ	2	40	0	25	29	96	100	87	98
HF (D)	th	2	20	0	0	7	100	75	78	89
JT	r	2	11	58	22	33	75	100	100	91
CR	sh	2	27	17	25	23	100	100	100	100
KK	th	2	86	25	40	56	100	100	100	100
GG (D)	th	3	0	0	0	0	100	100	83	95
AVERAGE % SCORE			32	13	12	21	97	98	95	97

(D): Dialect spoken in home environment

* : Previous Response Development training on designated phoneme

Figure 1 demonstrates the results of training using the modified procedure. Target phonemes for the study included the /th/, /l/, /s/, /r/, and /sh/ phonemes. All children demonstrated significant gains in terms of generalized phonemic responses. Table 1 shows that the average percent of improvement was 77 percent with a range of improvement from 44 to 100 percent. The figures in Table 1 were computed by subtracting the posttest scores from the pretest scores to obtain the number of percentage points difference.

TABLE 1

NUMBER OF PERCENTAGE POINTS IMPROVEMENT
OF GENERALIZED PHONEME RESPONSES IN CONVERSATION
AS A RESULT OF STIMULUS SHIFT TRAINING
FOR PUBLIC SCHOOL SUBJECTS

Subject	% Improvement	Subject	% Improvement
SW	86	HF	82
LS	100	JT	57
BW	77	CR	77
CS	100	*RS	54
KM	77	KK	44
CF	69	GG	95
AVERAGE % IMPROVEMENT			77

*Previous Response Development Training

The figures indicate overall effectiveness of the Stimulus Shift Generalization program for all subjects who completed training. Results of program effectiveness for those subjects who have not completed the program are pending.

During the study, areas of difficulty regarding program stimuli, instructions, and overall procedure were evaluated by the participating paraprofessional and by invited professionals. The suggested changes may be found in Appendix B. These changes were included in the recently modified study.

Also included in the study were a) evaluation of the manual format and b) evaluation of the Phoneme Boundary programs. An improved manual format, developed cooperatively with personnel in the print/production component of Media Support Services, was used in the above study. Format improvements included: colored ink to distinguish areas of vocal stimuli and/or responses, larger overall size of each manual page to improve clarity of programing information, and decrement of technical jargon to encourage use by paraprofessionals. Programatic changes were also included in the revised manuals.

Therapist evaluation during the study yielded general satisfaction with the manual format. Recommended changes included:

a) elimination of coding on page titles,

b) rearrangement of instructional information (from Stimulus/Response/Reinforcement/Criterion to Criterion/Reinforcement/Response/Stimulus); with the revised arrangement, the more frequent y used information is readily visible and, therefore, available to the therapist, and

    c)   definitive placement of therapist responsibilities

          which are out-of-the-ordinary on each page of the

          program.

Phoneme Boundary Program

In order to counteract the effects of overgeneralized phoneme responses, Phoneme Boundary training was necessary. The training procedure, based on the Stimulus Shift format, called for each subject's oral discriminative responses between the previously substituted phoneme and the training phoneme at the word and, if necessary, sentence configurations. For more efficient programing, all possible overgeneralized combinations were included in each training program. Therefore, a subject with a pretraining substitution of [f/th] who overgeneralized correct production of the train-ing phoneme /th/ to the previously substituted /f/ phoneme would receive Phoneme Boundary training on these two phonemes as well as those phonemes sharing similar distinctive features, e.g., /th/, /d/ and /s/.

The data in Table 2 show that seven out of 12 subjects required Phoneme Boundary training to counteract the effects of overgeneralization.

TABLE 2

MINUTES OF TRAINING TIME NEEDED TO MEET
TERMINATION CRITERION FOR PHONEME BOUNDARY TRAINING
IN WORDS, RANDOMIZED WORDS, AND SENTENCES

Subject	Grade	OG[1]	Place of [2] Occurrence	Minutes of Training			
				Words	Random Words	Sentences	Total
SW	1	th/f	[3] I - W	50"	80"	60"	190"
LS	1	th/f	I - W	100	100	60	260
BW	1	th/f	I - W	75	45	45	165
KM	1	th/f	[4] SW[1]	-	-	70	70
JT	2	r/w	I - W	50	40	-	90
CR	2	sh/ch	I - W	60	30	90	180
KK	2	th/f	SW[1]	-	-	60	60
Total Time to Criterion (Minutes)				325	295	385	1015
Mean Time to Criterion (Minutes)				65	59	64	145

[1]OG   Overgeneralized substitution

[2]Place   Place in the program where overgeneralization first noted

[3]I - W   Overgeneralization noted in Initial position in Words

[4]SW[1]   Overgeneralization noted in Sentences containing One training phoneme in Words

The data shown in Table 2 appear to indicate that:

a) for most subjects, overgeneralization occurs immediately
after initial position training; however, some subjects
may not encounter the problem of boundary confusion until
sentence configuration training,

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b) Phoneme Boundary training requires valuable therapy time to extinguish the boundary confusion, and

c) subjects who required Phoneme Boundary training at the Word and Randomized Word levels generally required continued training in sentences indicating that phoneme boundary awareness does not necessarily generalize from the word configuration to the sentence configuration.

From these data, it can be seen that the presence of overgeneralization in articulation training requires the use of expensive therapy time to counteract its effects. The present Stimulus Shift program under investigation which deals with program efficiency was constructed to decrease the possibility of overgeneralized phoneme occurrences. At this writing, minimal overgeneralization has occurred in the early stages of training; later training on the Stimulus Shift program, however, appears to re-establish appropriate boundary discriminations.

Therapy Duration

In a previous study conducted during the 1971-72 public school academic year (reported in Continuation Proposal, December 1, 1972, McLean/Raymore, Significant Findings and Events), the mean length of therapy for all subjects on all Stimulus Shift programs was 9 hours and 10 minutes. Table 3 shows that, for the revised program under discussion here, the mean length of therapy time for all subjects on all phoneme programs was 8 hours and 33 minutes, a slight decrease in actual therapy time from the previous study. The average number of therapy sessions, including conversation sessions, was 22, with the average number of training blocks to criterion being 155 (on most programs, 10 stimulus presentations constitute one training block).

TABLE 3

DURATION OF THERAPY NEEDED TO
REACH TERMINATION CRITERION ON THE
STIMULUS SHIFT PROGRAM (1972-1973 STUDY)

SUBJECT	PHONEME	GRADE	TRAINING BLOCKS[1]	NUMBER OF SESSIONS	THERAPY TIME[2]	CONV[3]	CONV TIME[4]	TOTAL TIME[5]
RS[6]	l	K	147	20	8'20"	3	45"	9'05"
SW	th	1	183	21	8'45"	4	60"	9'45"
LS	th	1	183	18	7'30"	6	90"	9' 0"
BW	th	1	143	17	7'05"	4	60"	8'05"
CS	l	1	155	17	7'05"	2	30"	7'35"
KM	th	1	96	13	5'25"	5	75"	6'40"
CF	s	2	230	23	9'35"	8	120"	10'35"
HF (D)	th	2	117	16	6'40"	6	90"	8'10"
JT	r	2	164	20	8'20"	5	75"	9'35"
CR	sh	2	153	17	7'05"	4	60"	8'05"
KK	th	2	129	15	6'15"	4	60"	7'15"
GG (D)	th	3	155	18	7'30"	5	75"	8'45"

[1] Training Blocks: For most programs, 10 training items in each training block

[2] Therapy Time: Approximately 25" per session

[3] Conversation: Number of sessions needed to reach termination criterion (96%) correct in conversation

[4] Conversation Time: Approximately 15" per session/conversation

[5] Total Time: Sum of Therapy and Conversation Times

[6] Previous Response Development Training

The average number of conversation training sessions needed to meet the 96 percent correct termination criterion was 4.7 sessions.

The full relevance of these data will be made apparent when data from the efficiency studies now under investigation have been collected. These data will be reported in the next Progress Report where comparisons between the results of the two studies will be made.

Reliability

During the study, reliability figures were obtained for agreement of phoneme judgments. Reliability between the professional speech pathologist and the paraprofessional indicated that phoneme judgment was reliable (97.5 percent agreement) and that the percentage of reliability error did not affect the data reported.

4. DISSEMINATION ACTIVITIES

Project members have had numerous requests for information regarding the Stimulus Shift Generalization and Response Development programs. Parsons Research Report Number 6 provides relatively recent data and information about the Stimulus Shift program. No written information is available with regard to the Response Development program, however. In an effort to resolve this problem, Sandra Raymore and Mary Shackelford are in the process of writing a report which will discuss the procedure and results of research with public school and institutionalized, retarded subjects. Once mediated, the information will be made available to the requesting public.

Dissemination of Parsons Research Report Number 6 has continued to individuals seeking information about the Stimulus Shift procedure. One university setting is presently using the report as a research text in articulation.

5. CAPITAL EQUIPMENT ACQUISITIONS

      None

6. DATA COLLECTION

Procedures previously reported for data collection have been maintained for the present investigation. One additional aspect has been added: in order to assess the appropriateness of stimulus words and sentences, an analysis of errors is being made. The errors are being analyzed in terms of the phoneme being trained, grade placement, and program strategy (horizontal or vertical). The data collected from this analysis will assist in the evaluation of the total program effectiveness. For example, stimuli on which excessive errors are made due to coarticulation features may be replaced.

7. OTHER ACTIVITIES

During the present report period, two visitations occurred. Mrs. Janis Jelinek consulted with the Project staff regarding the manual and program formats. Mrs. Jelinek is involved with a community based speech program in Laramie, Wyoming. Her reaction to the program was largely of a complimentary nature; some suggestions were made in terms of possible format modifications. These suggestions will be integrated during the upcoming report period.

Dr. James McLean also met with the Project staff to follow up on recent activities with which this Project is concerned.

8. STAFF UTILIZATION

With the change in research priorities, this Project's staff has been decreased. At present, the staff includes:

James McLean	Co-Participating Investigator and Consultant
Sandra Raymore	Co-Participating Investigator
Patsy White	Secretary and Paraprofessional Data Collector
Vivian Gorman	Paraprofessional Data Collector

Sandra Raymore announced her intentions of leaving to accept another position. Dr. McLean and the Project directors are beginning a search for a suitable replacement.

9. FUTURE ACTIVITIES

During the next report period, the primary thrusts of the Project staff
will be in the direction of development, modification, reporting, and
mediation. Once the study which is presently being investigated is completed
and the data are analyzed, a program strategy for the Stimulus Shift Generali-
zation program for use with public school children will be selected. The
selected strategy will then undergo minor revision according to data analysis
and therapist suggestions. A new manual format will be developed and
mediation of the revised program and manual will be initiated.

With regard to collected data o' a) Stimulus Shift application with
retarded children, and b) Response Development application with retarded and
public school children, reports will be completed and mediated. The
information collected from this data will be used to establish forthcoming
research strategies.

In addition, a workshop program will be developed and mediated for
evaluation of the public school Stimulus Shift Generalization program. The
workshop package will be developed with the cooperation of the Extramural
Independent Study Center of the University of Kansas. A representative
from EISC is in residence and available to Project MORE staff members. In-
cluded in the workshop package will be materials necessary to involve both
professional and paraprofessional staff in field test sites with the collec-
tion of data to further support the use of the developed training program.

At the present time, the Project staff is considering the possibilities
of a summer research program involving the use of a revised Stimulus Shift
procedure with institutionalized, retarded children at Parsons State
Hospital and Training Center. The program would be used on the cottage site
with some peer and cottage aide involvement. The possibilities of such a
study are under investigation.

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

During the first quarter of the grant year, the print/production component of Media Support Services has been involved in both the preliminary and final mediation on several Project MORE programs. These programs include:

HAIR WASHING PROGRAM. Preliminary editing was completed and the program was printed in rough draft form for testing.

IRONING PROGRAM. The revised Ironing Program was submitted to Media for artwork and reworking of the program format. The program was printed in rough draft form for testing of the revised edition.

NOSE WIPING PROGRAM. The program was edited and limited artwork was completed to illustrate the program. It was printed in rough draft form for testing.

APPROPRIATE MODE OF CLOTHING PROGRAM. Artwork was completed on the scenes to be used in testing of the program.

SHOWERING PROGRAM. The Shower Song was returned to Media for final revision before being recorded. Media personnel completely revised the song (see . . . Significant Findings and Events, for revision).

COMPLEXION CARE PROGRAM. This program was submitted for preliminary editing, artwork, and format design. The program was printed in rough draft form for testing.

LEG AND UNDERARM SHAVING PROGRAM. The tested version of this program was submitted for final mediation. Final editing is being completed and the program will be sent to the printer June 15 in preparation for final dissemination.

FACE SHAVING PROGRAM. The tested version of this program was submitted for final mediation. Final editing, artwork, and paste-up will be completed June 1 and the program will be sent   the printer in preparation for final dissemination.

TOOTHBRUSHING PROGRAM. The tested version of this program was submitted
for final mediation. Final editing, artwork, and paste-up will be completed
June 1 and the program will be sent to the printer in preparation for
dissemination.

EATING SKILLS FOR DAILY LIVING PROGRAM. The tested version of this
program was submitted for final mediation. Final editing is being completed
and the program will be sent to the printer June 29 in preparation for final
dissemination.

STYLE BOOK. A Media Support Services style book was developed by the
print/production component during this quarter. The style book sets basic
requirements, editing idiosyncrasies, and specific Project styles for all
programs and products emanating from this component. The style book was
distributed to researchers and other parties submitting work to Media in the
hopes of eliminating many minor editing problems before the work reaches Media.

BROCHURES. Several brochures were produced during the first quarter of
the grant year. One brochure presents the activities of Media Support Services
and will be used in connection with displays. A Project MORE brochure was
prepared, both for use by the Project and by SEIMC, which lists the programs
available for dissemination. A workshop brochure is currently being prepared
and one brochure was designed and printed for the Parsons University Affiliated
Facility.

OTHER. Other printed products for Project MORE include data sheets,
therapy schedules, training need checklists, behavior checklists, implemen-
tation schedules, transparencies, catalog cards, identifier sheets, program
loading charts, and assorted graphs. Many of these products required artwork
and editing, in addition to the printing.

To further dissemination for Project MORE programs, a feature length article
was written for the American Nurses Association newspaper about the student

nurses from Kansas State College of Pittsburg serving as Project More trainers. Pictures were included with the story and it will appear in the June issue of the newspaper.

A major non-Project-oriented undertaking during this quarter was the printing of the Systematic Planning with Evaluation Criteria (SPEC) Manual which was funded by the Region VII Rehabilitation Services and sponsored by the Kansas University Affiliated Facility (see Budde, Major Activities and Accomplishments). In addition, seven working papers and various data sheets were printed for the Parsons Research Project, and work on forms and data sheets was completed for the Parsons University Affiliated Facility. These activities were accomplished during interims in time between Project MORE production.

Production of the second edition of the Mental Retardation Films catalog was also undertaken by the print/production staff. The catalog provides a larger and more convenient listing of 16mm films on mental retardation. The films are categorized into sections according to general content and the listing includes newer films not in the earlier edition and excludes films no longer available. This revision of the film catalog was undertaken at the suggestion of the National Association for Retarded Children which will distribute the catalog.

A workshop package, developed for Project MORE and the University of Kansas Special Education Instructional Materials Center, has been an important part of Media's activity during this quarter. The package is multimedia in content and includes notebooks for each participant, simulation materials, brochures, kinescopes, and films. Media staff members have been primary sources and subjects for preworkshop presentation testing, as well as sources for production of the materials themselves. Brochures and information bulletins for displays at workshop sites were produced by the print/

production component, as well as approximately 200 workshop packages.

During this quarter the audiovisual component of Media Support Services has participated in a variety of mediational activities in support of the Project MORE/SEIMC. Workshop presentations incorporated the production of videotapes, later transferred to kinescopes, on several programs being developed by Project MORE. These kinescopes were developed to demonstrate children utilizing the programs with pretest and posttest behaviors being shown.

Other workshop materials were developed and program design and implementation strategies were represented in slides. Entry behavior levels of the students which ultimately determine program subject matter were also represented in slide format.

An entire workshop presentation, given by Project staff members, was videotaped in the production studio at Parsons State Hospital and Training Center. This series of videotapes was viewed by Project personnel for evaluation of the workshop content and presentation techniques.

Photographs for several Project brochures were also developed during the first quarter. In addition, slides of stimulus cards for several speech programs were completed for use by the Project.

2. PROBLEMS

A problem continues concerning the dissemination of Project MORE programs. The Problem is caused by the effectiveness, or noneffectiveness, of the commercial disseminator, Psychologists and Educators, Inc. The resources of this firm do not appear to be adequate to reach the consumers for whom the Project MORE programs are intended.

3. SIGNIFICANT FINDINGS AND EVENTS

   Not Applicable

4. DISSEMINATION ACTIVITIES

The implementation of procedures for the dissemination of Project MORE instructional packages was accomplished during the past grant year (see Media, Dissemination Activities, Final Progress Report, January 31, 1973). At this writing, the Hair Rolling Program is being disseminated through the Extramural Independent Study Center (EISC) of the University of Kansas. EISC initially produced 500 copies of the program and, of that total, 250 were consigned to Psychologists and Educators, Inc., Jacksonville, Illinois, for further distribution.

Market information will be retrieved from users in order to make final revisions of programs. Utilization of a noncommercial disseminator--EISC--and a commercial disseminator--Psychologists and Educators, Inc.--will enable a comparison of the two methods of dissemination to determine which will reach the greater number of consumers working with the handicapped. EISC has produced and distributed a brochure describing five of the Project MORE programs, while Psychologists and Educators, Inc., has included the same Project MORE programs in its 1973 Education - Psychology Catalog.

Although formal reports by the distributors, as called for in the distribution agreements, have not been compiled, the preliminary results of the dissemination effort, as of May 21, 1973, are shown in Table 1.

Table 1

DISSEMINATION OF HAIR ROLLING PROGRAM THROUGH MAY 21, 1973

	Disseminator	
	Psychologists & Educators, Inc.	EISC
Inquiries from institutions	2	25
Inquiries from public school systems, departments of mental health, special education departments, etc.	3	14
Inquiries from non-profit organizations and individuals	2	--
Total inquiries	7	39
Total number of programs ordered and shipped	1	72

In February the Project was visited by consultants John Dostal and Tom Chastain. Dostal conferred with Project personnel regarding marketing procedures and Chastain offered suggestions to the workshop director regarding the development of prototypical workshop packages. A synopsis in outline form of the major topics discussed during that visit follows.

I. Image Building:

> The Project needs to work toward
> - more visual and graphic representation in reports and publicity;
> - taking a stance which is more "authoritative" and less "apologetic/democratic" in its presentations and releases;
> - establishing an advisory group of distinguished, prestigious persons in industry, related fields, and services;
> - making even more definitive the imprimatur or identifying qualities of programs, reports, and releases;
> - disseminating a newsletter to various mailing lists with emphasis on program releases, new programs, and data.

II. Expanding and Stabilizing the Project:

> The Project should
>
> - investigate other sources of (additional) funding, such as Jewish orgainzations, career education legislation, public health programs, NIH, NIE special research funds, National Media Center contracting funds, Early Childhood Education (BEH) funds, and "local" foundations for educational endeavors, (i.e. Danforth Foundation);
> - offer its services and competencies to other projects through Paul Andarack (Ed. Services), John Belland (National Media Center), Ed Martin (BEH), Harold Wigerin (AECT), et al.
>   - these services could range from lending through a photo-slide morgue to helping others with various phases of program development, including mediation;
> - try to arrange visits by influential persons, such as Pat Forsythe, Howard Walker, John Belland, Bill Marshall (of Project LIFE), et al.
> - emphasize the curricular aspects of the product line of programs in production and programs in planning--labeling them as the already recommended curricular needs for the

trainable (these recommendations from NARC, state depart-
ment curriculum guides, CEC, etc.):
-trade on the fact that public schools are mandated to educate
all the handicapped--including the trainable retarded--
and that 22 states already are facing litigation re this
mandate;
-and, in regard to the above two points, reassess the audience
for the Project and, in particular, the market for the
products more clearly and definitively.

III. Field Testing:

In setting up procedures for field testing and other forms
of evaluation, the Project should consider
-using a broad base for market-retrieval data;
-selecting specific influential clinics, schools, and
institutions including those recommended as sites by
persons in BEH (such as the Northern Virginia site
specified by John Davis) and persons in other key
agencies or institutions;
-working through Tom Chastain and the RRC, inaugurate training
in "sparse" areas such as Nevada and Colorado;
-using many visuals of actual training experiences in all
reports and releases, with captions identifying all
cooperating persons and programs;
-considering requesting or contracting for additional funds
to train personnel on site; deliver consultant and service
input to other agencies and programs; to validate programs
in such a manner as may be needed to assure replicability;
and to negotiate directly with other BEH-funded groups, such
as IMC's, RRC's and the National Media Center organization;
-and, in regard to the above, to handle such negotiations
directly with the director of the organization and with
the full knowledge of the granting office and officer.

The activities of the workshop director have done much to assist

Project MORE in reaching groups of teachers, paraprofessionals, and parents

who work with the handicapped (see Lent, Major Activities and Accomplishments).

Each workshop provides additional exposure for the Project and, as a result,

helps to enhance the consumer market for Project MORE materials.

An exhibit was prepared and displayed at the 51st Annual Council for

Exceptional children (CEC) Convention in Dallas, Texas, April 22-27, 1973

(see Media, Other Activities). A photograph of that exhibit appears on

the next page.
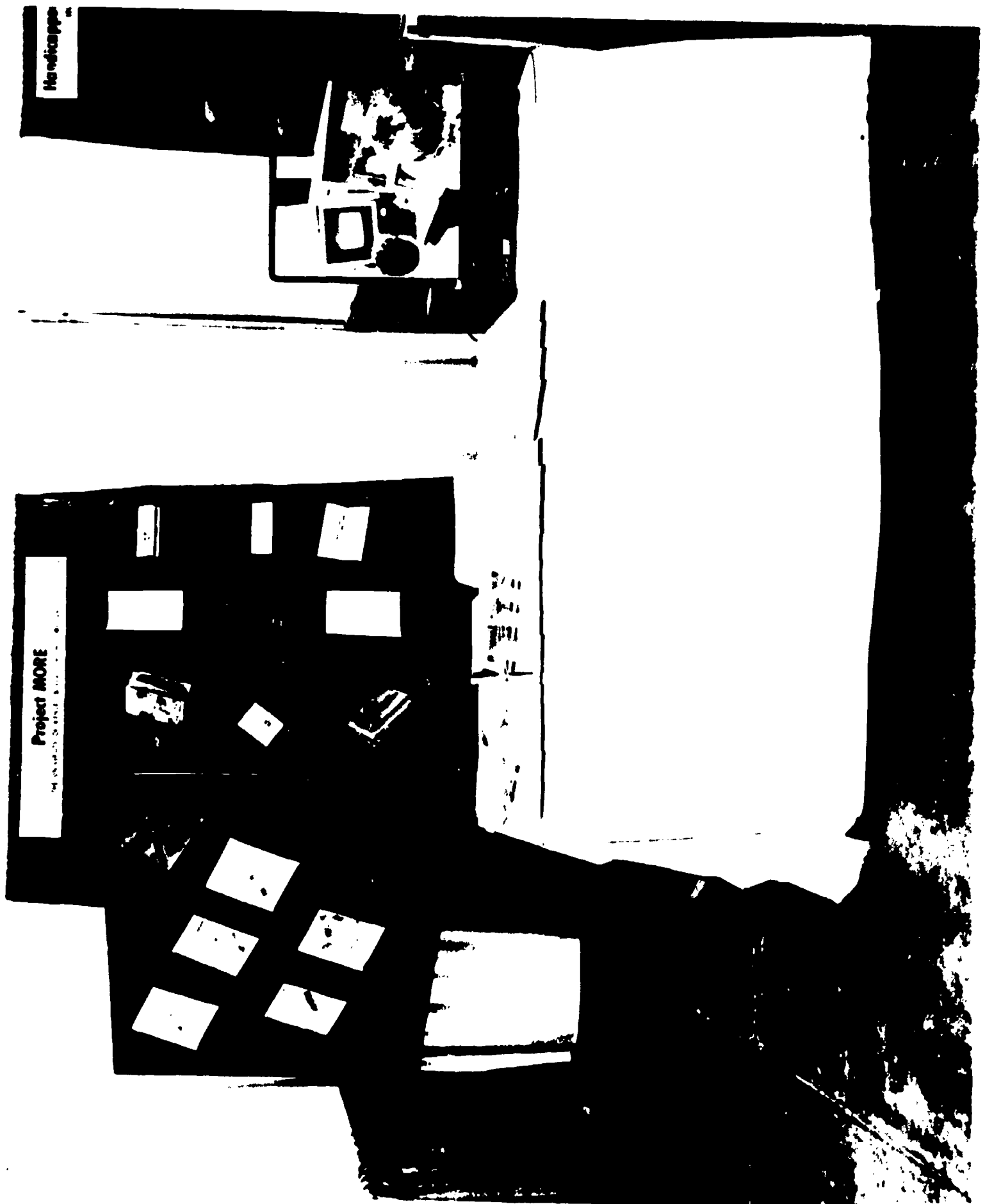
5. CAPITAL EQUIPMENT ACQUISITIONS

An A.B. Dick Model 360CD Offset Press with #1-3608 blanket wash attachment and #1-3706 dry offset spray attachment, image area 10½ x 16½, 110V, sheet size 3 x 5 to 11 3/4 x 17, has been leased per new grant year.

6. DATA COLLECTION

   Not Applicable

7. OTHER ACTIVITIES

<u>PARTICIPATION</u> <u>IN</u> <u>MAJOR</u> <u>CONFERENCES</u> <u>AND</u> <u>CONVENTIONS</u>

During this quarter, Media Support Services personnel attended four major national conventions. A synopsis of their activities at these meetings follows.

March 18-22, 1973 -- Betty J. Ong, administrative assistant, attended the 3rd Annual National Educational Technology Conference in New York City. While at the conference Ong completed a two hour course on instructional communications offered by Hofstra University entitled *Selection and Use of Educational Media.*

April 8-13, 1973 -- Barbara M. McLean, instructional media analyst; Betty Nelick, writer/editor; and Betty J. Ong attended the 1st Annual Convention of the Association for Special Education Technology (ASET) held concurrently with the 50th Annual Convention of the Association for Educational Communications and Technology (AECT) in Las Vegas, Nevada. McLean was elected national secretary/treasurer of ASET, which is a national affiliate of AECT.

Following the ASET convention, Alan Cotzin and Dr. Klaus Weinschenk accompanied Project personnel to Parsons. Cotzin, who is associated with the National Center on Educational Media and Materials for the Handicapped (NCEMMH), toured the Project and conferred with the Project administration about future involvement with NCEMMH. Weinschenk, who is chairman of the European Association for Special Education/Instructional Technology and Educational Media, discussed the possibilities of international involvement for Project MORE and ASET in the area of special education technology.

April 23-28, 1973 -- Dr. Casper Ferneti, research associate; Dr. James R. Lent, Project director; Charles Cartwright, program dissemination editor; and Barbara M. McLean attended the 51st Annual Council for Exceptional Children (CEC) Convention in Dallas, Texas. A display of Project MORE materials, which included two continuous audiovisual presentations, was exhibited at this convention.

May 27-June 1, 1973 -- At this writing several Project personnel are planning to participate in a symposium chaired by Dr. Philip Roos, executive director of the National Association for Retarded Children, at the 97th Annual Meeting of the American Association on Mental Deficiency (AAMD). The title of the symposium is *Systematic Training: A Solution to Institutional Crises*. The participants and their topics are as follows:

James Budde, Project MORE systems analyst, *The Systems Analyst Plans and Organizes Systematic Training;*

Dr. Lent and Dr. Ingo Keilitz, research associate, *The Educational Researchers Design and Develop Systematic Training Programs;*

Dr. Kayo Sunada, director of the Colorado State Home and Training School, Wheatridge, Colorado, *The Superintendent of an Institution Implements Systematic Training Programs;* and

Barbara M. McLean, *The Media Expert Mediates Systematic Training Programs*.

PARTICIPATION IN SYMPOSIA, WORKSHOPS, AND REGIONAL CONFERENCES

March 23-25, 1973 -- Barbara M. McLean accompanied Sandra Grafton, workshop director, to Duluth, Minnesota, where the first prototypical Project MORE workshop package was presented to the Minnesota Council for Exceptional Children.

March 29-31, 1973 -- Barbara M. McLean, Sandra Grafton, and Dr. Lent presented a symposium entitled *The Adult Retarded: Extending Services* in Santa Barbara, California. The symposium was sponsored by California State University at Los Angeles through the President's Council on Mental Retardation.

IMPROVEMENT OF PRODUCTION CAPABILITIES

During April, Shirley Lent, graphics artist, spent three days in a practicum situation at the studios of Calvin Communications, Inc., Kansas City, Missouri. Lent received training in areas that would better enable the graphics art personnel of Media Support Services to prepare materials for audiovisual use.

COOPERATIVE PROJECTS

The print/production component of Media Support Services has developed several products in cooperation with other agencies during this quarter when interims in Project MORE production allows time for these projects. These products include a brochure for a symposium entitled *Retarded Citizens and the Law*. The symposium will be held June 11-12, 1973, and is being sponsored by the Kansas Association for Retarded Children, Kansas University Affiliated Facility, and Parsons State Hospital and Training Center Hospital In-service Training.

A Developmental Disabilities Act planning guide called *Systematic Planning with Evaluation Criteria (SPEC)* was completed. This product was funded by the Region VII Rehabilitation Services and was sponsored by the Kansas University Affiliated Facility.

Both the print/production and audiovisual components of Media Support Services collaborated in the compilation and production of the second edition of a mental retardation films catalog. A consignment of 1,500 copies has been made to the National Association for Retarded Children.

The audiovisual component is currently in production of a film for the Kansas State Department of Special Education. The film depicts the state-wide program for EMR/TMR children in Kansas. This training film is due for fall release.

The Temporal Parameters of Operant Audiometry has undergone final production changes and is due for release in June. This film is entirely underwritten by other funding sources.

In addition, the department is developing a multimedia public information campaign relating to the developmentally disabled children in Kansas. Included in the project will be a commercial television program, TV and radio public service announcements, slide/tape demonstration materials, and brochures to stimulate awareness relating to the problems of the developmentally disabled child.

8. STAFF UTILIZATION

On March 1, 1973, Betty M. Nelick assumed the new position of writer/editor which was proposed in the December 1, 1972, Continuation Proposal. Her position has not yet been approved by the Personnel Division of the State of Kansas (see Media, Problems). Nelick holds a master of arts degree from the University of Wisconsin and is a former assistant professor of Engish at Ottawa University in Ottawa, Kansas.

Daniel Parlett resigned as production assistant April 15, 1973. His position has been assumed by Stanley Gaier.

A new typist, Henrietta Wolverton, has been hired for fulltime work on the MT/ST compositor. The former fulltime typist, Georgia Needham, has assumed a parttime position as a typist. This position was approved in the December 1, 1972, Continuation Proposal.

All other positions in the print/production component of Media Support Services remain constant. Vitae for Gaier, Nelick, and Wolverton may be found in Appendix C.

With increased demands in the still photographic area, a staff photographer from the audiovisual component, Carl Williams, has been assigned the permanent responsibility for Project photography. Williams' position is funded by the State of Kansas. He will provide the Project with photographs for news releases, newsletters, brochures, training programs, and other products deemed appropriate by Project staff members. This relationship should provide more efficient and productive media development.

9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

All major efforts of the print/production component of Media Support Services will be directed at preparing Project MORE programs for final dissemination during the next quarter. Four programs are ready for final mediation at the present time. One of these programs will be in the hands of the printer by June 1, 1973. The other three programs will be mediated and final copy will be prepared before June 29, 1973, and will be sent to the printer in preparation for final dissemination.

By the end of the next reporting period an additional six to seven programs will be ready for mediation in preparation for final dissemination. At least four of these programs will have been mediated by August 31, 1973. These programs will bring the total ready for dissemination to a maximum of 12 and a minimum of nine.

Revisions and production of the workshop packages will continue to be a major function of Media Support Services. The data collected from the presentations of the training packages, via workshop packages, will give direction needed in the conceptualization, production, and dissemination of these packages. The workshop director will rely heavily upon both the print/ production and audiovisual staffs for implementation of this new area of training activity for professionals, both preservice and in-service, and paraprofessionals, including parents, into validated packages.

The audiovisual component will continue to be heavily involved with the conception, production, and dissemination of training programs and workshop materials.

1. MAJOR ACTIVITIES AND ACCOMPLISHMENTS

The initial tasks undertaken this reporting period include 1) increasing the efficiency of the implementation system, and 2) designing a training and management system within the institution that will lend itself to validation of training products. In early January 1973, the implementation system was subjected to analysis in order to determine more efficient procedures for field testing. A number of procedures were subjected to rigorous analysis, and alternatives were sought. After careful consideration these new procedures were incorporated into the implementation system in place of the previous procedures. Once the new procedures were incorporated, it was projected that the time and resources needed to validate products would decrease by about 60 percent. After two months of operations these projections appear fairly accurate and the new procedures have not created any major loss in effectiveness.

A Developmental Disabilities Act planning guide entitled Systematic Planning with Evaluation Criteria (SPEC) was completed this quarter (see Media, Major Activities and Accomplishments). SPEC is one product of a technical assistance project funded by the Region VII Rehabilitation Services and sponsored by the Kansas University Affiliated Facility. The project's primary mission is to provide technical assistance in the areas of planning and evaluation.

2. PROBLEMS

No significant problems were encountered concerning application or implementation of new procedures. Time will be needed, however, to fully implement the system and to determine the full impact of the recent modifications. Extensive work will need to be directed to Project training and management systems. It is anticipated that, as these structures will be operational, research development and validation procedures will be synchronized more efficiently, eliminating a major bottleneck.

3. SIGNIFICANT FINDINGS AND EVENTS

   Not applicable.

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4. DISSEMINATION ACTIVITIES

Not applicable.

5. CAPITAL EQUIPMENT ACQUISITIONS

   None

6. DATA COLLECTION

Not applicable.

7. OTHER ACTIVITIES

   Not applicable.

8. STAFF UTILIZATION

Not applicable.

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## 9. FUTURE ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Systems analysis will continue to be used to adjust the implementation system and to set up training and management systems that will allow Project validation procedures to be synchronized. Some work has been done to determine Project management methods concerning cost effectiveness measures. Application of these measures will be studied further as the present implementation system is evaluated and adjusted.

APPENDIX A

Stimulus Shift
Efficiency Study
In Public Schools:

Horizontal Strategy
Vertical Strategy

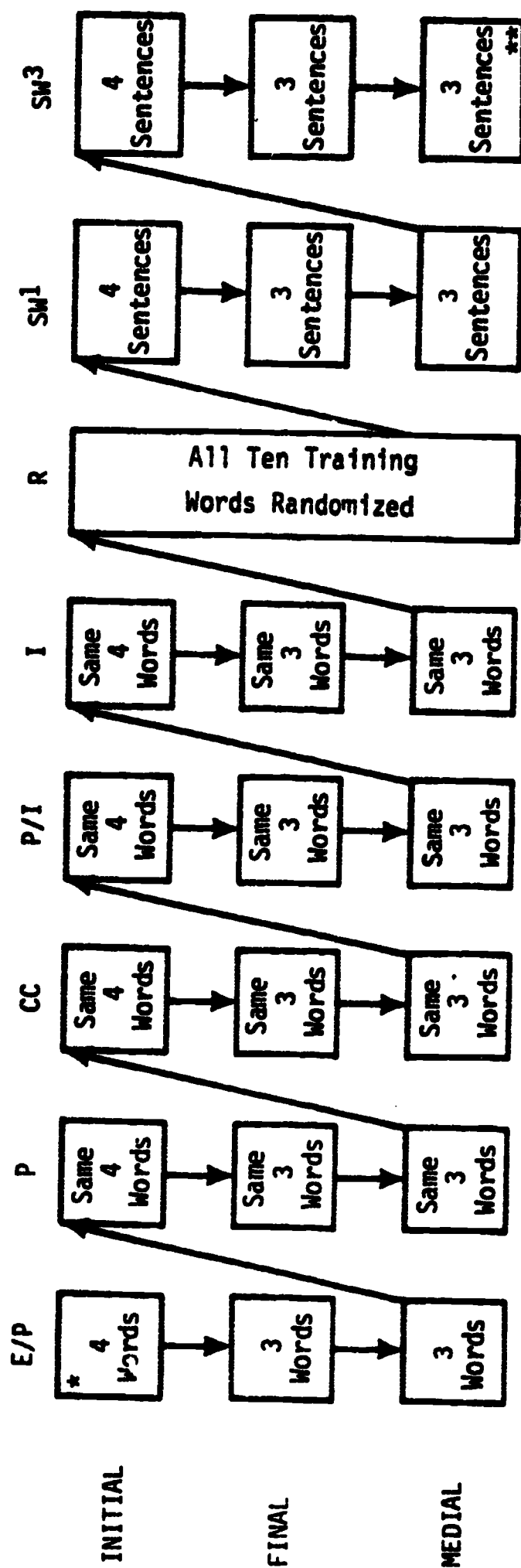# HORIZONTAL STRATEGY FOR STIMULUS

SHIFT EFFICIENCY STUDY

LEGEND
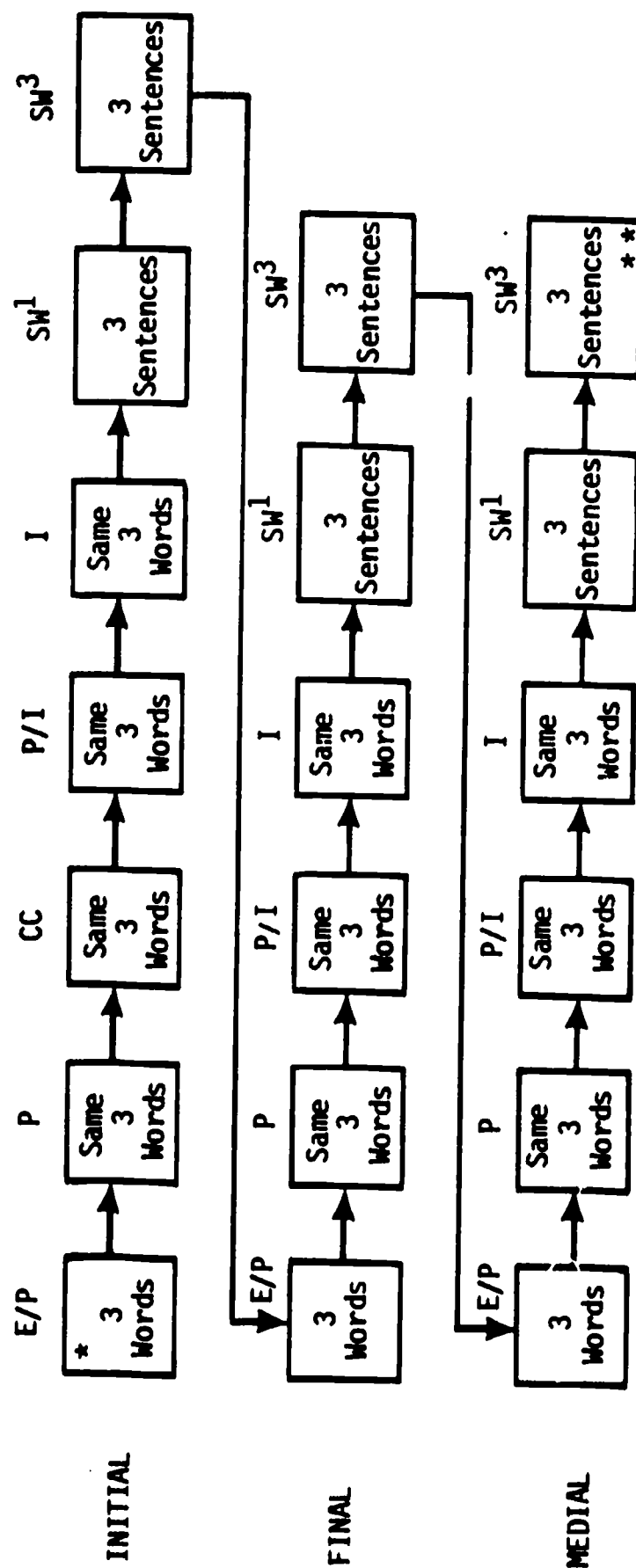
* – Program Begins
E/P – Echoic/Picture Stimulus
P – Picture Stimulus
P/I – Picture/Intraverbal Stimulus
I – Intraverbal Stimulus
SW^1 – Sentence containing one word with the training sound
SW^3 – Sentence containing three words with the training sound

CC – Cost Contingency
I – Initial position
F – Final position
M – Medial position
** – Program Ends

VERTICAL STRATEGY FOR STIMULUS
SHIFT EFFICIENCY STUDY

SW^3

| 4 Sentences | → | 3 Sentences | → | 3 Sentences ** |

SW^1

| 4 Sentences | → | 3 Sentences | → | 3 Sentences |

R

| All Ten Training Words Randomized |

I

| Same 4 Words | → | Same 3 Words | → | Same 3 Words |

P/I

| Same 4 Words | → | Same 3 Words | → | Same 3 Words |

CC

| Same 4 Words | → | Same 3 Words | → | Same 3 Words |

P

| Same 4 Words | → | Same 3 Words | → | Same 3 Words |

E/P

| * 4 Words | → | 3 Words | → | 3 Words |

INITIAL

FINAL

MEDIAL

LEGEND

* - Program Begins
E/P - Echoic/Picture Stimulus
P - Picture Stimulus
P/I - Picture/Intraverbal Stimulus
I - Intraverbal Stimulus
** - Program Ends

R - Randomization
CC - Cost Contingency
SW^1 - Sentence containing one word with the training sound
SW^3 - Sentence containing three words with the training sound

APPENDIX B

Suggested Stimulus Shift
and
Phoneme Boundary Changes

Study 1

October 1972 - February 1973

Suggested Changes 1972-1973 (old programs)

1. "The" easier than "a" in sentences (SW^1)

2. Not enough training on $EP(SW^2)$ to allow children to learn sentences well enough for $P(SW^2)$

3. Children have difficult time on "moth" on /th/ program - hard to stimulate the word - most children call it "butterfly."

4. Training to criterion on SW^3 + PD unclear.

5. Word "alligator" on /l/ program difficult.

6. Conversation training: suggest

   a) start child with 26 tokens;

   b) as child misarticulates word, remove token;

   c) place missed tokens in front of child;

   d) child says missed word correctly five times in a row, receives the token; otherwise, loses token.

7. Phoneme Boundary training:

   Training in concentrated blocks

/f/	/s/	/d/
1.	1.	1.
2.	2.	2.
3.	3.	3.

8. Phoneme Boundary - Criterion for return to Stimulus Shift is unclear.

9. Phoneme Boundary - Instructions for Part II are unclear.

APPENDIX C

Vitae

STANLEY PAUL GAIER

TITLE: Production Assistant
        Bureau of Child Research - P

Date of birth: December 26, 1943
Place of birth: Oklahoma City, Oklahoma

Sex: Male
Present Nationality: American

Educational Experience:

A.A., Parsons Junior College, 1963
Bachelor of Science in Education, Kansas State College of Pittsburg, 1968

Professional History:

Industrial Arts and Mechanical Drawing Instructor, Neodesha High School, Neodesha,
    Kansas, 1968-1969
High School Instructor, St. Patrick's High School, Parsons, Kansas, 1969-1971
Draftsman, Bureau of Child Research, University of Kansas, Parsons State Hospital
    and Training Center, Parsons, Kansas, 1971-1972
Photo Graphics Technician, Media Support Services, Bureau of Child Research,
    University of Kansas, Parsons State Hospital and Training Center, 1972-1973
Production Assistant, Media Support Services, Bureau of Child Research, University
    of Kansas, Parsons State Hospital and Training Center, 1973-present

Credits:

Illustrations, Precision Conduit Bending, Stanford Pugh, 1969.
Illustrations, Precision Conduit Calculator, Stanford Pugh, Jr., 1971

Supplemental Information:

Certified (Kansas) Secondary School Instructor

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INGO KEILITZ

TITLE: Research Associate
       Bureau of Child Research - P

Date of birth: February 25, 1946   Sex: Male
Place of birth: Hamburg-Altona, Germany   Present Nationality: American

Educational Experience:

Bachelor of Arts, Drew University, Psychology and Philosophy, 1968
Master of Science, Kansas State University, Experimental Psychology, 1970
Ph.D., Kansas State University, Experimental Psychology, 1971

Professional History:

Teaching Assistant, Department of Psychology, Kansas State University,
    Manhattan, 1968-1970
Research Assistant, Department of Psychology, Kansas State University,
    Manhattan, Summer 1969
Research Assistant, Department of Speech Pathology, Kansas State University,
    Manhattan, 1970
Predoctoral Research Trainee (National Institute of Mental Health), Department
    of Psychology, Kansas State University, Manhattan, 1968-1971
Postdoctoral Research Trainee (National Institute of Child Health and Human
    Development), Bureau of Child Research, University of Kansas, Parsons
    State Hospital and Training Center, Parsons, Kansas, 1971-1972
Behavior Modification Specialist, Four County Mental Health Center, Independence,
    Kansas, 1972-1973
Educational Consultant, Unified School Districts, Montgomery, Elk, Chatauqua,
    and Wilson Counties (Kansas), 1972-1973
Research Associate, Bureau of Child Research, University of Kansas, 1973-present
Assistant Director, Project MORE, Parsons Research Center, Parsons, Kansas,
    1973-present

Memberships in Professional Organizations:

Midwestern Psychological Association
Southwestern Psychological Association
American Association on Mental Deficiency

Publications:

Keilitz, I. Attention: General or selective. Perceptual and Motor Skills,
    1973, 36, 130.
Keilitz, I., D.J. Tucker, and R.D. Horner. Increasing mentally retarded
    adolescents' verbalizations about current events. Journal of Applied
    Behavior Analysis, in press.
Lent, J.R., et al. (I. Keilitz). Direction following of retarded and non-
    retarded adolescents. American Journal of Mental Deficiency, in press.
Keilitz, I. and J. Frieman. Transfer of training following errorless discrimin-
    ation learning. Journal of Experimental Psychology, 1970, 85, 293-299.

Credits:

Lent, J.R., and I. Keilitz. The educational researchers design and develop
    systematic training programs. Paper in "Systematic training: A solution

INGO KEILITZ (Con't.)

to institutional crises." Symposium, American Association on Mental Deficiency Meeting, Atlanta, 1973.

Keilitz, I. Nonverbal responses to language: The role of modeling, imagery, and imitation. Paper presented at the Gatlinburg Conference on Research and Theory in Mental Retardation, Gatlinburg, Tennessee, 1973.

Keilitz, I. Effects of inhibitory training on transfer. Paper presented at the Southwestern Psychological Association Meeting, Oklahoma City, Oklahoma, April 1972.

Keilitz, I., and J. Frieman. General vs. selective attention: A procedural consideration. Paper presented at the Midwestern Psychological Association Meeting, Detroit, Michigan, May 1971.

Keilitz, I. Transfer of training following discrimination learning without errors. Paper presented at the Midwestern Psychological Association Meeting, Cincinnati, Ohio, May 1970.

Supplemental Information:

Adjunct Faculty, Labette Community Junior College, Parsons, Kansas

Fields of Major Scientific Interest:

Behavior analysis and modification; language; mental retardation

BETTY M. NELICK

TITLE: Writer/Editor
Bureau of Child Research - P

Date of birth: March 16, 1917
Place of birth: Flat Rock, Illinois

Sex: Female
Present Nationality: American

Educational Experience:

Bachelor of Arts, Cornell College, English, 1939
Master of Arts, University of Wisconsin, English, 1949
(Work toward Ph.D. at the University of Wisconsin)

Professional History:

Teacher, Clarence High School, Clarence, Iowa, 1939-1941
Secretary, Etched Products Corporation, Long Island, New York, 1944
Teacher, Warrenville, Illinois, 1945
Teacher, Emerson School, Elmhurst, Illinois, 1960
Teacher of English, Tonganoxie High School, Tonganoxie, Kansas, 1963-1966
Assistant Professor of English, Ottawa University, Ottawa, Kansas, 1966-1971
Secretary, Trinity Episcopal Church, Lawrence, Kansas, 1972-1973
Writer/Editor, Media Support Services, University of Kansas Bureau of Child
    Research, Parsons State Hospital and Training Center, 1973-present

Memberships in Professional Organizations:

Association for Special Education Technology

Publications:

The early years: Trinity Episcopal Church, Lawrence, Kansas. Betty M. Nelick,
    Ed., 1972.
Nelick, Betty M. An introduction to D. H. Lawrence: A study syllabus. University
    of Kansas Division of Continuing Education, 1964.
Nelick, Betty M. Modern drama: A high school study syllabus. University of
    Kansas Division of Continuing Education, 1968.
Nelick, Betty M. Autobiography: A study syllabus. University of Kansas
    Division of Continuing Education, 1965.
Nelick, Betty M. The modern American novel: A study syllabus. University of
    Kansas Division of Continuing Education, 1965.

Supplemental Information:

Kansas teacher certification

HENRIETTA WOLVERTON

TITLE: MT/ST Compositor
         Bureau of Child Research - P

Date of birth: March 24, 1929
Place of birth: McCune, Kansas

Sex: Female
Present Nationality: American

Educational Experience:

Typing, Night Course, Parsons, Kansas, Junior High School, 1969
Typing, Night Course, Labette Community Junior College, Parsons, Kansas, 1970
Typing, Night Course, Parsons, Kansas, Junior High School, 1971

Professional History:

Hallmark Cards, Hall Bros., Parsons, Kansas, 1947-1948
Sales Clerk, J.C. Penney Company, Inc., Parsons, Kansas, 1968-1971
Sales Clerk, Stephen's Women's Wear, Parsons, Kansas, 1971
Secretary, Gibson Products, Parsons, Kansas, 1971-1973
Research Assistant, Media Support Services, University of Kansas Bureau of
   Child Research, Parsons State Hospital and Training Center, 1973-present